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ABSTRACT

This research project was designed to study the present situation and functions of the provincial universities and to assess their role in regional development as well as to make recommendations for the more effective contributions to the development of the provinces in which they are situated. This project covered universities in 11 provinces (out of 26) in Indonesia. The institutions under study include both government and private universities. But in terms of geographical distribution and types of institutions, the 11 universities covered in this study can be said to be fairly representative of the provincial universities in Indonesia. The objective of the study was to determine how effective the relationship between universities and the planning agencies in the province is, and how adequately the universities are able to make meaningful contributions to the economic, social, and political growth of the provinces where they are located. From the results of the study it is obvious that universities participate actively in regional development in Indonesia. The appendix contains background information on the 11 universities studied and statistical tables that accompany the text. (Author/PG)

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THE ROLE OF THE PROVINCIAL UNIVERSITIES IN REGIONAL DEVELOPMENT IN INDONESIA: AN ASSESSMENT

by

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The writers wish to express their appreciation to RIHED and the Directorate of Higher Education Ministry of Education and Culture, Republik of Indonesia, as sponsor of this study and to the many individuals, groups, government and other institutions and organisations who have contributed to the team's research effort.

FOREWORD

In May 1973 the Regional Institute of Higher Education and Development, with the approval of the Executive Committee, commissioned a research study on "The Role of Provincial Universities in Regional Development in Indonesia: An Assessment". This research project was submitted to RIHED by the Directorate of Higher Education of Indonesia (this Directorate has since been elevated to the Directorate General of Higher Education). The study was carried out by a team of four Indonesian scholars from the Bogor Institute of Agriculture (IPB). They were: Dr. Achjani Atmakusuma, team leader, Dr. I. G. Bagus Teken, Ir. A. Suharjo and Dr. P. Soeparman Asngari.

In keeping with the objectives of RIHED, this research project was designed to study the present situation and functions of the provincial universities and to assess their roles in regional development as well as to make recommendations for their more effective contributions to the development of the provinces in which they are situated. This project covered universities in eleven provinces (out of a total of twenty-six) in Indonesia. The institutions under study included both government and private universities. But in terms of geographical distribution and types of institutions, the eleven universities covered in this study can be said to be fairly representative of the provincial universities in Indonesia. The team spent two weeks at each university interviewing administrators and staff, observing services and activities on the campus, administering questionnaires as well as gathering reports and other published materials. The assessment was based on the data gathered from each institution and those collected from the provinces, especially in terms of rural economy and development.

On behalf of the Regional Institute of Higher Education and Development, I wish to express my appreciation of the work by the team of researchers who had successfully completed this study and my gratitude to the Directorate General of Higher Education of Indonesia for their support of this study. Especially, I would like to thank Dr. Achjani Atmakusuma, the project director, who, in spite of his very busy schedule, had agreed to make a trip to Singapore to finalize the research report. In addition to his responsibilities as Executive Secretary of the Agricultural Sciences Consortium and as Professor and Head of the Department of Physiology and Pharmacology, IPB, Dr. Achjani Atmakusuma has recently been appointed Director of Research and Public Services in the Directorate General of Higher Education. In this new position, Dr. Achjani Atmakusuma is responsible to Prof. Dr. Makaminan Makagiansar, Director General of Higher Education, Ministry of Education, Indonesia. Concurrently, Prof. Dr. Makaminan Makagiansar serves as Vice-Chairman of the RIHED Executive Committee and the Governing Board. I wish also to express my sincere gratitude to the Government of Indonesia for its continued support of RIHED and for its full cooperation in the Institute's activities.

1974

Amnuay Tapingkae
Director

CHAPTER I.

INTRODUCTION

INTRODUCTION

The First Five-Year Development Plan of the Republic of Indonesia (1969–1974) states that the educational objectives of the Plan are:

(1) To link education with the needs of, as well as opportunities for, economic and social development in order to equip young people for their life and at the same time to meet the manpower needs of the community.

(2) To adapt programming in the educational sector to the need of supporting priority sectors, i.e. agriculture, agricultural supporting industries, small and light industry, infrastructure and tourism.

(3) To prepare a reform of education that would make the school an integral, suitable and useful element in the life of the community.

Accordingly, the universities in Indonesia are currently attempting to contribute constructively to the national development process. At the provincial level, universities are very often regarded as institutions for regional planning in view of the available manpower and research facilities.

The practice of involving universities in development planning has been strengthened by the instructions of the Ministry of the Interior to all Governors, to preserve one per cent of the provincial income to be utilized by institutions of higher education in the respective regions.

This instruction is in line with the directives of the President of the Republic of Indonesia in 1972 to all Ministers and Governors to involve the universities in research and developmental projects.

1. Objective of the Study

Faced with the task of formulating the Second Five-Year Development Plan, it is important to know how effective the relationship is between universities and the planning agencies in the provinces, and how adequately the universities are able to make meaningful contributions to the economic, social and political growth of the provinces where they are located.

The specific objective of this study is to assess the existing situation of the universities in their role of regional development in Indonesia.

2. Methodology

The study is concentrated on universities in the provinces with Faculties of Agriculture, in addition to Faculties of technology and social sciences. The reasons are threefold, viz.

(1) The limited time and budget constraints, precluded a study encompassing all institutions.

(2) A range in the abilities of the universities to contribute to the development of the respective regions was sought.

(3) Indonesia is an agricultural country, and in the nation's current stage of development, agricultural development had been accorded the highest priority.

Based on the above criteria the following universities were selected in the sample

1. Syiah Kuala University in Aceh;
2. North Sumatra University in North Sumatra;
3. Andalas University in West Sumatra;
4. Sriwijaya University in South Sumatra;
5. Padjadjaran University in West Java;
6. Diponegoro University in Central Java;
7. Brawijaya University in East Java;
8. Udayana University in Bali;
9. Hasanuddin University in South Sulawesi;
10. Sam Ratulangi University in North Sulawesi; and
11. Lambung Mangkurat University in South Kalimantan.

Even though we did not investigate all the universities in Indonesia it was felt that enough data was collected to give a general idea of prevailing conditions, since the 11 universities visited turned out to comprise the majority of the universities which have a role in rural development. Before visiting the sample universities, studies of the literature were undertaken at the Directorate of Higher Education and at the Education Development Board (Badan Pengembangan Pendidikan) in Jakarta to acquaint the team with the present general status of the universities scattered all over the country. Reports and publications of the above mentioned government offices were an important source of information. These reports and publications provided the team with

structure, services, etc. Interviews were conducted with government officials who are connected with and responsible for the activities of the universities in Indonesia. Information obtained from reports and publications and from interviews complemented each other.

As the search of the literature was conducted, a list of questions was sent to each of the sample universities, indicating the kind of information the team would like to obtain at the time of an on-campus visit. Moreover a list of officials that the team would like to meet and to interview was forwarded to each university in the study. Hence, the universities had sufficient time to prepare the requested information so that the limited time available to the team could be utilized as efficiently as possible.

A combination of questionnaires and interviews was used in collecting information regarding teaching, research, public service carried out by the universities, and their links with the social environment. The interviews were conducted with the Rectors or Associate Rectors, the Faculty Deans, the Department Heads, etc. The information needed by the team can be grouped as follows:

(a) Historical background of the establishment of the university;
(b) Resources of the university for teaching, research and public service;
(c) Activities of the university in adult education or special courses, in research and in public service, which have bearing upon regional development.
(d) Advantages and disadvantages as felt by the university concerning the cooperation with the provincial government in developing the region, and
(e) Handicaps encountered in such cooperative arrangements.

Another set of information was sought from the provincial government, which included such things as its expectations from the university, philosophy of cooperation, handicaps encountered in cooperation, etc.

The first university visited was Padjadjaran University in West Java, followed by Diponegoro University in Central Java. All the members of the Team participated in those visits. The principal reason for following this particular procedure was that all members of the team were exposed to the same experience. Then the team split into two groups.

CHAPTER II.

HISTORICAL BACKGROUND OF THE ESTABLISHMENT OF THE UNIVERSITIES IN INDONESIA

HISTORICAL BACKGROUND OF THE ESTABLISHMENT OF THE UNIVERSITIES IN INDONESIA.

Higher education in the classical western sense in Indonesia started when the College of Engineering (T.H.S.) was established in 1920 during the Dutch colonial period. In the subsequent years, between 1920–1941, six institutions of higher education were brought into being, all located in the island of Java, i.e.:

1920	College of Engineering (T.H.S.) in Bandung
1924	College of Law (R.H.S.) in Jakarta.
1927	College of Medicine (G.H.S.) in Jakarta.
1940	College of Arts in Jakarta.
	School of Medicine and Dentistry in Surabaya.
1941	The first year class (propadeuse), initiated for Agricultural Higher Education in Bogor, attached to the College of Medicine.

During that period, the college or faculty philosophy prevailed and the model of a unified university was not provided. When the university concept was introduced after independence, the faculty atmosphere could not be completely abolished. The faculties continued to form a community separated from other units comprising the university. Consequently, the modern day Indonesian universities continue as a more or less multiversity system or as an amalgamation of independent faculties. This imposes certain constraints on the increasingly desirable extension of interdisciplinary cooperation, since it often involves duplication of costly effort and equipment.

Most of the students admitted to study in the colleges between 1920 and 1941 were Dutch and Eurasians and only a small percentage of Indonesians were permitted. In the last 20 years of Dutch colonialism, only an average of 74 Indonesian per year were enrolled in higher education (45.9% of the total enrolment) with a total of 230 graduates or 43.2% of the whole graduates.

Shortly after independence (August 17, 1945), a university concept was introduced. The first university of the Republic of Indonesia was Gajah Mada University, established in December 19, 1949, consisting of the Faculties of Engineering, Law and Literature, Medicine, Dentistry, Agriculture and Veterinary Medicine. In 1950 a second university was established in Jakarta, called the Universitas Indonesia.

All the Faculties of both these universities were located in Java. Only the Faculty of Economics of the Universitas Indonesia was located in South Sulawesi, in Ujung Pandang.

As a consequence of the situation at that time, only students with substantial private backing could take their education beyond the high-school level, because they were required to enrol in universities and colleges in Java. It is obviously essential that regional communities should also be given the opportunity of an education beyond Senior High School level.

After independence there was an increase in demand for democratization of education and a demand for better socio-economics prospects.

As a result of this democratization of education, there was the assumption, that each child entering primary education, will ultimately become a student in the university. This assumption, coupled with the prestige status accorded to university graduates, lead to a rapid expansion of universities. Besides, there was the attraction or prestige available to certain groups within the society in the region, in having their own universities. In establishing universities, the founders thought more about their own prestige, than about the needs of the surrounding regions for a university. This growth was enhanced, especially after a decree was issued by the Provisional People's Consultative Assembly in 1961, in which it was mentioned that it would be appropriate to have at least one state university in each province. The "appropriateness" was interpreted later as compulsory, resulting in heavy demands for the establishment of new state universities in provinces with no universities. The other factors which enhanced the growth of the universities were the quantitative approach in higher education and socio-cultural, ideological, political, and economical factors.

Those universities owed their establishment to local politicians and administrators or private foundations, and were established around 1957 and were adopted by the central government between 1960–1965. Up till 1965, 28 Universities and 10 Institutions of Teachers Training and Education were established.

This rapid establishment of new state universities in the period following the decree was mainly made possible by conferring independent university status on groups of faculties previously affiliated with an older university, and incorporating private faculties as state universities.

In addition to state universities, there are also private institutions of higher education whose establishment and operation is permitted provided they fulfill the basic conditions intended to safeguard minimum educational standards. These institutions are larger in number and they play an important role in meeting the expanding demand for admission to higher education in Indonesia. They fall into distinct types according to the nature of their

administrative structure, their relations with government, and in terms of the kind and scope of their academic provision and training facilities. The types of private institutions operating are known as "equalized", "recognized" and "registered" institutions. Examinations and awards granted by "equalized" institutions are recognized by the government. The category of "recognized" means that such institutions may conduct examinations under government supervision, while students of "registered" institutions must undertake state examinations. Private institutions account for about 60% of the total enrolment in higher education.

Besides the state and private universities, other state colleges or academic programmes exist under the auspicies of several departments, such as the Department of Interior, the Department of Public Works, etc. These academic programmes originally were developed as a type of higher vocational training to supply the necessary middle manpower for the respective departments or ministries. In the 1960's they were upgraded into institutions of higher learning, based on the Higher Education Act No. 22, 1962. The result is, that several Ministries in Indonesia operate their own institutions and grant degrees to their graduates who may have doubtful qualification and inadequately planned training.

At present there are a total of 225 private institutions of higher education and 92 government operated institutions granting degrees.

CHAPTER III.

THE ROLE OF THE UNIVERSITIES IN REGIONAL DEVELOPMENT

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Regional development is defined here as the activities conducted by the government and community in a certain region with the purpose of improving the welfare of the local community, either in material or spiritual well being.

"Region" in this study is synonymous with "province".

1. Relations and Cooperation in Regional Development.

From the interviews with officials of the eleven universities and with representatives of the provincial government it became clear that both parties need each other. Both felt that a continued cooperation and coordination are real needs, because plans which are designed only by government agencies without participation of the universities, will tend not to reach the target. Neither will plans designed only by universities.

The provincial government felt that they were still lacking in skilled and trained personnel to carry out important tasks in the planning and execution of development plans. There are the universities in the provinces which can be relied upon for this purpose.

On the other hand, the universities very well realize that one of their duties is to serve the provincial government. If not the universities, who else is going to provide the provincial government with this kind of specialized service, at least in the short run?

Besides, the staff members of the universities should be exposed to the practical and operational aspects of the theories presented in the classroom. In other words the universities need the society as a laboratory to enhance their capabilities, to respond adequately to today's major social, economic and cultural problems.

However, there are relative differences in the intensity of cooperation between universities and provincial governments, quite possibly due to the different environment of the regions.

Quantitative statement on these differences are difficult to make as a great number of subjective and intangible factors affect the observation and evaluation performed.

Aside from differences in the degree of cooperation, we also noted that approaches were applied, either through organizational structure or individual contact.

Before the central government's suggestion to establish a Regional Development Planning/Coordinating Board in 1972, cooperation between universities and local governments were already in existence. However, this cooperation was established on a personal basis. Senior staff from universities were requested by Governors to assist local governments. They held positions as individuals and not as representatives of the universities. Should they hold leadership in the university or faculty concerned, then, other staff would be invited to take part in assisting the local government.

When the team conducted observation tours in the regions at the end of 1973, there was no uniformity found in the implementation of the instruction of the Minister of Interior and directives of the President as mentioned above, with respect to organization structure, and implementation of cooperation.

The effects of the type of relationship between universities and the local governments operating before the instruction are also still noticeable, and consequently, different characteristics are evident from region to region.

One significant similarity worth noting is that each region has endeavoured to improve the existing form of relationship and cooperation. This indicates that efforts have been made to establish cooperation on an institutional basis and to perform comprehensive planning by leaving out the sectoral approach.

There are several characteristics found in the organizational structure of the Regional Development Planning/Coordinating Boards and the implementation of cooperation.

a. Organizational Structure

a.1. Chairman

a.1.1. Chairman and Vice-Chairman come from the universities such as in Aceh (Syiah Kuala University) and South Kalimantan (University of Lambung Mangkurat).

a.1.2. The Chairman comes from the provincial government while the Vice-Chairman comes from the universities. Such a situation can be seen in West Sumatra (Andalas University), West Java Padjadjaran University) and South Sulawesi (Hasanuddin University).

a.1.3. Both the Chairman and the Vice-Chairman come from the

local government as can be found in Central Java, East Java, Bali and North Sulawesi.

a.2. Members

a.2.1. More than 50% of the members come from the universities as can be seen in Aceh, West Java, South Kalimantan, South Sulawesi and North Sulawesi.

a.2.2. Less than 50% of the Board members come from universities as can be seen in North Sumatra, West Sumatra, South Sumatra, Central Java and East Java.

b. Implementation of Cooperation

There are three salient types found in the implementation of the cooperation

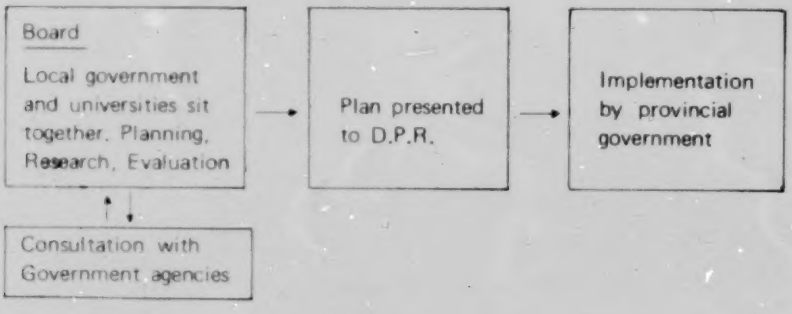
Type a.

Chairman, Vice-Chairman and 50% of the members of the Regional Development Planning/Coordinating Board come from the universities, all of them are senior staff, and some hold leadership in the universities or faculties.

Under this type of cooperation, the university participates in all activities starting from problem identification, planning, research, and finalizes the plans as well as evaluating performance.

The Board Chairman, together with the local government presents the whole planning process before the D.P.R. (House of Representative).

After receiving approval from the D.P.R., it can be implemented by the local government. This type of cooperation can be seen in Aceh (Syiah Kuala University).


Board
Local government and universities sit together. Planning, Research, Evaluation
Plan presented to D.P.R.
Implementation by provincial government
Consultation with Government agencies

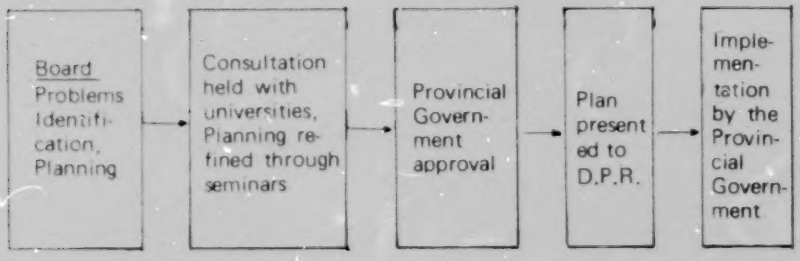
Type b.

Under this type, the Chairman is from the provincial government himself and the Vice-Chairman is taken either from the university or local government itself while more or less than 50% of the members might come from universities.

This Board conducts problem identification and conceptual planning. In refining the concept, the local government holds consultation with universities, e.g. through seminars. The result of the seminars are submitted to the local government for approval, forwarded to D.P.R. for the green light and back to the local government for implementation.

Such a situation can be found in most regions like North Sumatra, Central Sumatra, South Sumatra, West Java, Central Java, East Java, South Kalimantan, South Sulawesi and North Sulawesi.

There is a minor difference found in South Kalimantan where the university takes part in implementation supervision.


Board
Problems Identification, Planning
Consultation held with universities, Planning refined through seminars
Provincial Government approval
Plan presented to D.P.R.
Implementation by the Provincial Government

Type c.

Under this type, universities are not seated in the Board organization. Universities only assist in conducting research together with the Services/ Agencies existing in the regions. This can be found in Bali.

In addition to the above mentioned types, there might exist other forms of cooperation or combinations of these three.

In order to obtain more accurate information on this matter, special research is required.

It should be noted that organizationally and structurally, these universities are not included in the Board organizations. The universities are autonomous institutions under the Ministry of Education and Culture.

Participation was highly appreciated by the provincial governments. This appreciation was reflected in the financial support offered to the universities. In 1970–1971, from a budget of about 110 million rupiahs, about 16 million rupiahs were contributed by the provincial government of Aceh.

In 1971–1972 this support was increased to about 25 million rupiahs from the university budget of about 129 million. The contribution of the provincial government of Aceh to Syiah Kuala University was realized in the form of housing for the university staff, classrooms, offices, maintenance and operation cost of the university vehicle, house rent for staff, etc.

The financial support by the provincial government of North Sumatra to North Sumatra University was probably the largest in the country. In 1972–1973 this support amounted to about 150 million rupiahs, 1973–1974 it was increased to about 500 million rupiahs. This support was in the form of concrete buildings for the campus.

The financial support of the provincial government of Central Java to Diponegoro University was about 16 million rupiahs in 1972–1973 exclusively for the Medical Faculty and in 1972–1974 about 10 million rupiahs exclusively for the Faculty of Animal Husbandry. The provincial government of Central Java allocated 30 million rupiahs for research from its annual budget in 1972. This was increased to 50 million rupiahs in 1973.

No specific data was found regarding the financial support of the provincial government of West Java to universities in West Java in general or to Padjadjaran University in particular other than for research purposes. Unlike the situation in the other three provinces, there seemed to be very meagre, or even no financial support, in the form of classrooms, laboratories, housing for university staff and the like. The only support of this kind was obtained by the Faculty of Agriculture of Padjadjaran University from the municipal government of Bandung in the form of a few hectares of rice land suitable for experimental purposes.

Other regional governments, such as South Sulawesi and others, provide their support in the form of funds to the universities. The amount of the support is subject to the size of the local government's budget.

According to government regulation, universities are considered as state universities no matter whether they are located in the regions. Consequently, all financial requirements are the responsibility of the central government. If the local governments provide financial support to universities, then it

signifies the existence of good relationships between the universities and the local governments.

2. University's Role in Research

The regional universities realize the importance of research as one of the tasks within the Tridharma Perguruan Tinggi (University's Three Services Principle), although experts and equipment are far from adequate.

They realize that scientific research is vital not only to create a real academic environment, but also to provide solutions to problems arising from the expansion and improvement of agriculture and industrial development. They also realize that the role of the universities is not only to be aware of the most recent achievements made in science and technology, but also to make a contribution to society through conducting research and making new discoveries as well as providing assistance through the application of technical expertise to the country's economy.

In view of the above attitudes, the universities in the regions are doing their best to make the research conducted parallel with regional development (See Appendix).

Research projects which are now being conducted by universities, are largely results from proposals made by the universities to the local governments. The greater part of research activities are conducted by senior staff and generally are not equally distributed among all teaching staff. This is due to the consideration of project success where the project is entrusted to senior staff rather than to junior ones by the local government.

Several research activities however involved junior staff and graduate students, such as that found in the Institute of Demography at some universities as well as the research conducted on regional income. Students are also involved in the Bimas Supervized package Credit programme in rice intensification programme activities in reforestration of bare land, and in regional administration.

The applicability of research findings in regional development is subject to the relevance of the nature of the research itself. To determine what project is considered relevant to regional development, some criteria have been established. These are:

1. Certain levels of technological development where the results can be adapted by the farming community.

2. Sociological aspects of applying research, through studying farmers' mentality, conditions, and local environment as a preparation for the introduction of some innovation.

3. Extension service aspect in determining the proper method for the application and dissemination of new technology.

4. Economic aspect that is, the potential for income increase.

5. Potential resources evaluation aspect for the purpose of production development.

6. Action research aspect.

7. Etc.

There is no definite information as to the degree to which the results of research in the regions concerned can be implemented. At least those selected from the list of identification of problems jointly prepared by the university/faculty of the regions concerned can be considered as relevant research to regional development.

Although a good deal of research has been performed by universities, it is felt that the physical facilities provided by provincial governments to support the conduct of this research are not adequate.

3. Universities' Role in Public Service

All the universities are active in performing public services in various forms, according to needs in regional development, as can be seen in the appendix.

One kind of public service performed by all the universities visited is an interdisciplinary activity called Kuliah Kerja Nyata (KKN – National Study Service Scheme) which was started in 1971/1972.

The purposes of KKN are:

1. to give university students practical experience in solving problems of rural development as part of their education.

2. to supply a large resource of young educated people for rural development.

Expected results of KKN programme are:

1. The students will develop a habit of adopting an interdisciplinary approach to development problems.

2. Skills development, self confidence and initiative will be generated among the students in order to make them directly and truly understand and have the capability to carry out rural construction and development programmes.

3. The university will not be isolated as an ivory tower. In view of the experience gained by the university staff members participating in the implementation of the KKN scheme in assuming supervisory and advisory roles, as well as the experience of the students themselves, the curricula will be more consistent and related to Indonesia's development needs.

4. To bring the students closer to the community with the hope of creating reciprocity.

5. Direct and practical assistance provided by educated men in rural construction and development projects.

6. The students will promote their understanding on the usefulness of their education for rural development and become aware of development problems faced by the rural people.

7. Creating maturity in students' way of thinking to enable them to analyze pragmatically all kind of problems in the society through scientifically justifiable procedures.

8. In view of those experiences through direct contacts, the students will be more responsive to accept employment in rural areas after graduation.

Actually, the KKN programme is not new in Indonesia. During the fight for independence, guerilla soldiers of the Student Army taught while they fought. They became teachers for high schools established in rural areas as replacements for those in the Dutch-held towns.

Between 1950 and 1962, nearly 1500 university students worked for one or two years to fill teaching positions at the newly established high schools in Indonesia's outer islands.

For several years since 1963, senior students of agriculture and related fields were involved in the Bimas programme and they spent at least six months living and working in villages to help to increase rice production.

The difference between KKN programme and other aforementioned activities or other public services, is that it is conducted on the basis of an interdisciplinary approach, extensive, nationwide, integrated and intra-curricular.

KKN is coordinated by the Directorate of Higher Education, Department of Education and Culture. The Directorate for Higher Education has prepared and distributed a set of basic guidelines to be used as manuals.

Based on these guidelines each university has the freedom to develop its own particular form of study service programme responsive and relevant to the local aspirations, needs and conditions.

Student activities can be divided into two groups.

a. General Activities

The students assist village officers in the implementation of development projects in the villages through the application of an interdisciplinary approach. They participate in daily activities in the villages with the purpose of winning the hearts of the local populace and closely examining the life in the village concerned.

b. Special Activities

The students utilize the skills and knowledge provided by the university to assist the people directly and practically.

Essentially, what is needed in these activities is not a highly sophisticated technical knowledge, but the ability to effectively transfer even simple technical knowledge.

So far, KKN programme is still in introductory stage. In 1971/72, three universities conducted preliminary pilot projects. Thirteen universities were carrying out KKN pilot projects in 1973/74, involving the participation of 431 students.

As can be noted from the Appendix, the local governments are enthusiastic about this programme and Governors contribute financial support and actively take part in selecting areas for the project.

The Department of Education and Culture also provided funds for each university ranging from Rp. 750,000 to Rp. 900,000. It can be seen from this project, that cooperation exists among the universities, the Department of Education and Culture and the Department of Home Affairs. BUTSI volunteers (The Indonesian Board for Volunteer Service) who happen to have assignments in KKN area provided active assistance to the students.

The students were sent to villages for 6 months under the supervision of the teaching staff. Before sending the students, preliminary study was conducted by the tutors on the village situation, needs and potentiality. Based upon this study, programme activities were planned for the village.

The students do not simply act as advisors only, but in most cases, they are totally involved in the execution of the projects working side by side with the villagers. An important part of their task is to develop the village young cadres to carry on development projects after the students return to their university.

The number of students sent is decided by the respective universities. The operation basis is subdistrict. Usually, a subdistrict consists of 17 villages with a population of about 40,000 people. Each subdistrict receives 15 – 20 students with several discipline backgrounds. Discipline selection is subject to the requests made by the head of the village, head of the subdistrict, head of district and the Governor. Usually, the students live in the houses of the local people in order to achieve integration with the local populace. Activities conducted by the students are subject to the area concerned which include agriculture, health, administration, legal aid, education, nutrition improvement, family planning, etc.

All these student activities are evaluated and gain academic credit.

Other forms of public service are through the provision of courses to the community depending upon the needs of the respective areas (See Appendix).

Among the many courses provided, the most significant one is on administration, given by universities to the local government officers such as can be found in Central and West Java. As a result, new ways of thinking were developed among them and they become more programme oriented. Seminars were also conducted by some universities with the expectation that new ideas and methods presented will become familiar to the public and utilized.

The universities have also made a contribution towards local schools

development. Their activities included the development of curricula and educational materials directly relevant to the needs of the rural areas. Regional cultural centres were also established to protect, restore and promote the local cultural heritage. Health conditions were not neglected. For this purpose, health centres were established by the universities. The financial burden is carried by the universities themselves and the university staff members work as doctors without any enumeration.

At the beginning of 1972, BAPPENAS (National Planning Board) requested all universities in Indonesia to collect data on various sectors of development to be used as basic information in formulating basic planning policies for Repelita II (Second Five-Year Plan) as well as for the last year of Repelita I (The First Five-Year Plan).

CHAPTER IV.

PROBLEMS ENCOUNTERED

PROBLEMS ENCOUNTERED

It has been stated before that the establishment of universities was due to the urgent need for higher education after independence and also resulted from personal or certain group interests in the community at that time.

Consequently, due to the rapid changes which affect the establishment and existence of universities in the regions, various problems arise in higher education in Indonesia.

It is not our purpose to sum up all the problems faced. We will confine ourselves to pointing out major problems which influence the role of the universities in regional development.

General issues faced by universities in providing assistance to regional development, either in the form of cooperation as centres of learning or in the field of research, will be outlined here.

1. Cooperation with Provincial Governments

Problems encountered are not the same for each province. There are some provinces which have adequate qualified staff. Others have very short resources in both quality and quantity. Some provinces are rich with a sufficient annual income but there are also provinces with very limited resources and meagre income.

In view of the above situation, issues faced by the provinces in the implementation of ccoperation between universities and provincial governments are diverse.

General problems observed in the provincial government and universities are as follows:

a. Shortage or non-existence of university staff to assist in the execution of developmental activities as expected by the provincial government. There is a possibility that the required person is available but he might have a heavy work load which leaves him only a little time to spare.

b. Improper time coincidence between the time which could be provided by universities and the time as requested by the provincial government. For example, the university is requested by the provincial government to render

its service while at the same time the university is busy in conducting its own programmes. Quite often, either one must be postponed or sacrificed.

c. Inadequate equipment at the disposal of the faculties hamper the provision of the expected assistance which the university concerned may not be able to fulfill.

d. In several provinces, the provincial government and the university face the same problem. This can be seen in regional planning activities. The provincial government realizes the lack of knowledgable and skilled personnel in its staff to design a regional plan but similarly, the university staff are in general unable to perform such activity.

e. University participation in regional development activities is based on the opinion and judgement of the local government, who judge whether the university will be requested to assist in finding solutions to the problems faced. This can be taken as one of factor reflecting different degrees of cooperation between the local governments and the universities in the respective regions.

Usually, the opinion of the local government is not merely based upon the size and number of problems to be solved together with other party, but also upon the provincial governments evaluation of the capability of the university concerned. In addition to objective reasons, subjective reasons also contribute towards deciding as to whether the university will be requested to participate or not.

Whenever the university's assistance is requested in regional development, the depth and extent of its role in development is generally determined by the capability of the university to provide assistance. If the assistance is considered effective then requests will usually tend to increase.

f. Since regional financial resources are usually not great, developmental activity requiring assistance from the university is generally confined to activities requiring small amounts of funds with direct benefits.

Activities which require large amounts of funds and where benefits cannot be felt directly, such as education and fundamental research activities, are to a large extent avoided.

2. As Centres of Learning

After the establishment of universities in the provinces, initial financial

support was offered by the provincial governments in the first two to three years and seemed to augment a favourable growth of the faculties. However, in most of the provinces, this contribution did not last long enough to enable the faculties to develop adequately and properly. The possible reasons were: a. that some of the administrators at those time were thinking more about their own prestige than the practical problems of the future growth of the universities; b. they were unaware of the universities' potentials as centres for regional culture and as agents of modernization. They treated the universities simply as an extension of the high-school with the same organization, the same traditional teaching methods and the same budget.

All these attitudes affected the growth of the newly established universities and resulted in the establishment of poorly equipped institutions.

In some institutions there were teaching staff members who met requirements, qualitatively, but they did not have enough facilities to develop their skills or to do research work.

On the other hand, proliferation of the faculties throughout Indonesia, caused by the establishment of many universities in the province, further aggravated the shortage of staff, laboratories, libraries and equipment, which tended to lower the educational standards.

To meet the need of teaching staff, new staff members were recruited without any policy of selection or without a well-defined programme personnel development. The composition of teaching staff in particular academic fields sometimes did not meet the real needs of the field concerned, which should be the case in a well organized academic situation. Consequently some fields are overstaffed while others have a minimal number of staff.

The shortage of staff members is reflected in the student-staff ratio, which is below the minimal requirement. In Indonesia, the annual increase of student enrolment can be expected to range from 20,000 to 60,000 students, distributed among state and private universities. This increase cannot be avoided, since high-school graduates are superfluously poured out into the area of higher learning.

The increase in enrolments has not always been in disciplines most needed for national development. Often there is an absence or lack of coordination among the universities and between the universities and the governments. The result is a high rate of student drop out and a saturation of employment for university graduates in some sectors of the economic field.

The situation became even worse when political parties infiltrated the campus, resulting often in different attitudes among members of the university community that was frequently manifested in public dispute. Educators oftentimes were in disagreement with the pattern of approach as well as with the solution taken by the political parties in power.

Another difficulty is in the area of finance which has been felt by all state universities. Rules and regulations concerning budgetary allocations and university management are applicable to all state universities, both old and new, inspite of the fact that the needs of individual universities are quite different. The funds available to a university are further affected by the relative priority of higher education in the overall education in the country. If the stage of national development dictates that primary and secondary education should have a higher priority, then higher education will have to be sacrified for the lack of funds. It is also possible that policymakers are sometimes insensitive to the needs for the development of higher education in the country and hence funds become less readily available for the university.

These problems mentioned above effect the quality and intensity of the role of the universities in regional development.

3. As Research Centre for Regional Devleopment

Universities are regarded as research institutions par excellence in developing countries. Quite often, we find they act as the only research body concerned with regional development activities. Such a situation occurs in various parts of Indonesia.

This is due to the fact that the research institutes which should cope with the problems in the regions are very limited, either in the number of institutes or in research personnel. What is more, there is no research institute available in many provinces of Indonesia.

Although universities in the regions are inadequately staffed, either qualitatively or quantitatively, and also have inadequate to do research lab-equipment and library, facilities they are in a better position compared with the situation of the provincial government.

Therefore, universities in Indonesia can contribute significantly to research activities.

It happens quite often that research funds are not only received from the Department of Education and Culture, but also from other Departments

and private organizations on a contract basis with the universities.

It also happens that contracts are signed with individuals rather than through their respective universities. Problems will occur if there is a lack of control by the university in the implementation of both kind of contracts. Classes are neglected because the individual faculty member is conducting research in another locality far away from the university.

Another problem that frequently occurs is that individuals accept contracts outside their specialities or contracts which are irrelevant to the subject they are teaching. Consequently, this will cause a delay in student education. It will also give less opportunity for junior staff to develop. Besides, there is a great possibility that duplication of the same subject under research will take place.

These problems in the long run will create difficulties for the universities in performing their main functions and will retard their capabilities in conducting research for regional development.

CHAPTER V.

GOVERNMENT POLICY IN UNIVERSITY DEVELOPMENT

GOVERNMENT POLICY IN UNIVERSITY DEVELOPMENT

In the previous chapter, the major problems encountered by the universities in regional development that could retard their role on development have been summarized. This role could be improved if the universities overall problems were minimized. This chapter will present in more detail the action taken by the government to cope with the universities' overall problems.

1. Reorganization of the Structure and Management

As a follow up of the Basic Memorandum, agencies of change have emerged in the field of higher education.

First of all, there are the so-called "pembina" faculties ("pembina" literally means "developer"), i.e. faculties which in view of their higher academic standing have been assigned by the government the leadership role of upgrading other faculties in the same disciplines.

A further step in 1970 was the grouping of these "pembina" faculties into five "consortia", viz. the consortia for (i) agricultural sciences, (ii) science and technology, (iii) medical sciences, (iv) social sciences and humanities, and (v) education and teacher training. The consortium of social sciences and humanities is subdivided into five subconsortia, viz. for law, economics, social science, arts and philosophy, and psychology.

These consortia are advisory boards of the Minister of Education and Culture in designing nationwide development programmes in their respective fields. In specific instances, the Minister could delegate to the consortia the authority to execute programmes. Advice is sought from the consortia in the fields of structural, curriculum, personnel, material, research and public service development.

Tangible results have already been achieved since the establishment of these consortia in January 1970. A review of structure andccurriculum is in progress, upgrading courses ranging from agriculture to psychology have been undertaken by the "pembina" faculties under the coordination of the respective consortia; books are being translated from foreign languages into Bahasa Indonesia, etc. These activities will be continued in the years to come to achieve a real nationwide improvement in quality.

In all these efforts one must not lose sight of the fact that available human

and material resources are scarce. Any plan therefore which envisages simultaneous development of all state institutions of higher education will be unrealistic and ineffective.

Selecting priorities, is therefore inevitable and has a number of advantages. It tends to maximize the impact of both national and external resources by avoiding unnecessary duplication of effort and dissipation of scarce resources which would be inherent in a scheme of equal allocation of resources to all, irrespective of the quality of their performance and potentiality for growth.

This strategy is the outcome of the selective approach adopted in the First Five-Year Plan and is in accordance with the President's directive to adapt an intensive approach in consolidating development efforts and resources rather than fritter them away on extensive programmes.

While the consortia act as advisory boards to the Minister on academic affairs, another body has been set up, namely the Advisory Council on Higher Education (Dewan Pertimbangan Pendidikan Tinggi) for the purpose of advising the Minister on general policy matters, such as the review of the Higher Education Act, the regulation regarding the use of degrees, the systematic grouping of disciplines, the regrouping of institutions of higher education, system of funding, etc. This Advisory Council has as its members Rectors of selected states as well as private universities, the Chairman of each consortia and representatives of ministries having close links with higher education. The Chairman of this Advisory Council is the Director General of Education who is an ex-officio member, while the Director of Higher Education acts as Secretary of the Council in a non-member capacity.

Recognizing the important role played by the private universities in carrying out higher education, a special body is established for the purpose of providing guidance in the development of private universities. This body, called the Board for Private Institutions of Higher Education (Lembaga Perguruan Tinggi Swasta) has as its members Rectors of selected private and state universities, the Chairman of each consortia and representatives of certain government agencies.

The membership of the Advisory Council on Higher Education and the Board for Private Institutions of Higher Education have the same categories, the difference being in the fields of activity, i.e. the Advisory Council for general policy matters, while the Board deals exclusively with matters relating to private universities.

There are also annual meetings of the Rectors of state universities as a

forum for dialogues between the Ministry of Education and Culture and the Rectors concerned. These meetings are also utilized to discuss the draft annual budget for the next fiscal year.

The annual meetings of the Rectors are also used to monitor the implementation of policies, as well as to sound out the feeling of the Rectors regarding the various suggestions from the advisory bodies. The three advisory bodies and the annual meetings of the Rectors of state universities provide mechanisms for better planning and coordination.

2. Curriculum Development

The existing system, with a 5-year study for almost all the professional studies at the various faculties, has been adopted from the previous pre-independence period with some changes made in the course of time.

Efforts are now being made to change the system with the view to make the curricula more relevant to the needs of development as well as to relate them to the progress of science. The needs of development cover also the ecological setting in which the university finds itself.

A four years programme, is now being carried out as a pilot project by the Bandung Institute of Technology in the field of technology, by the Bogor Institute of Agriculture and the Agriculture Faculty of the Gajah Mada University in the field of agricultural sciences, by the Faculty of Letters, University of Indonesia in the field of arts and letters, while the Yogyakarta Institute for Teachers' Training and Education is preparing a pilot project in the field of teachers' training.

As for the other faculties, the system remains the same except that for the purpose of uniformity as far as the core curriculum is concerned, ministerial decrees have been and will be issued on minimum curricula for faculties in the same discipline. Faculties are to provide courses on top of the core courses as determined by the minimum curricula. These minimum curricula are designed by the respective consortia.

Anotner new concept (at least for the higher education system in Indonesia) is now seriously being taken into consideration, i.e. the "open door" system of higher education. This system provides not only the degree programme as is the case until the present time, but also non-degree programmes covering diploma courses to obtain certain skills and certificate-courses for certain subjects.

This system is designed to answer to the following problems:

(i) Due to the minimum requirements for entering the degree programme of higher education, quite a few graduates of secondary education cannot pursue further studies, while at the same time they are not suitably prepared to be productive in the community as a result of the too-theoretical nature of the existing secondary education. The "open door" system with its non-degree programmes could provide a solution here.

(ii) The system as it now stands provides only two alternatives:

(1) to graduate at the end of study,

(2) to drop out because of academic incompetence.

The "open door" system offers another alternative for dropouts through switching to non-degree programmes, thus still having the opportunity to acquire certain skills.

(iii) Members of the society at large, who would like to obtain more knowledge at the post-secondary level, face only one option, i.e. to enrol as full-time students, which is not their intention. The "open door" system with its non-degree programme provides a series of courses, which they may attend at their own choice. This offers a wide opportunity for officials, government as well as private organizations, to increase their skill and knowledge thus enabling them to improve the execution of their responsibilities.

Another attempt to relate the system of higher education to the needs of development is the introduction of the "study service scheme" in which the students are given an assignment, as a curricular requirement, to work in the rural areas in interdisciplinary units for a period of 3 to 6 months.

3. Personnel Development

The most strategic factor in the qualitative aspect of developing educational institutions, is the development of teaching personnel. It has been given a high priority in the policy implementation.

Personnel development is carried out through 3 systems:

(i) The "seeding" system, by means of which senior students are selected, and prepared to become faculty members. It is called the "seeding" system, since senior students are still regarded as "seeds".

(ii) The "grafting" system which includes a mechanism for selecting new graduates and "grafting" them to "pembina" faculties to gain strength and

ability in the field of teaching and research, and later to be assigned to other faculties.

(iii) The "upgrading" system, which provides refresher courses for existing faculty members, executed by the pembina faculties primarily for faculty members of non-pembina faculties.

The consortia assist the Ministry in the implementation of the personnel development plan on a nationwide scale. They are able to execute this task, since they know exactly the manpower situation at the various faculties in their fields of discipline, based on the results of their observations on the spot.

The personnel development programme, as mentioned above, is closely related to the teaching staff. Personnel development covers also programmes for development of university administrators, librarians and laboratory technicians. The programme for developing university administrators is now being carried out with the assistance of UNESCO. Scholarships have been provided by various governments and agencies to enable university librarians to gain more knowledge and to improve their ability in the management of libraries as a vital component in the functioning of the universities.

Upgrading courses for laboratory technicians have been conducted by the Bandung Institute of Technology and Gajah Mada University to assist other universities in providing their technicians with the technical ability necessary for the maintenance and repair of their equipment.

These upgrading courses are annual programmes with earmarked funds made available to the upgrading centres on an annual basis.

4. Material Development

In this context, an effort towards the standardisation of equipment in laboratories as well as required literature is now underway. This endeavour is executed by the respective consortia and has a double-purpose:

(1) to maintain an adequate standard, applied to all the faculties,

(2) to make efficient and effective use of the available funds, i.e. to purchase the required equipment and literature first, rather than buying sophisticated or specialised items which bear no direct relationship to the basic requirements.

Attention has also been given to a book-development programme, which covers translations, adaptations and original writings in the national language,

Bahasa Indonesia, which is the medium of instruction throughout the school system, from primary education up to higher education.

This book programme becomes more urgent because of the inability of students to understand English properly, due to the inefficient teaching of English at the secondary schools.

Priority is given to books for first and second year students, who constitute the largest part of the student body and whose ability in English is the most inadequate.

As is the case in the other areas, the consortia are requested to coordinate the selection of books to be translated, choice of translators and editors, as well as to suggest fields in which original writings are recommended.

CHAPTER VI.

CONCLUSIONS AND RECOMMENDATION

CONCLUSIONS AND RECOMMENDATION

1. Conclusions

From the results of the team's observation in the provinces and the 11 universities studied, it is obvious that universities participate actively in regional development in Indonesia.

Regional development programmes cover the implementation of projects initiated by the central government as well as those initiated by the provincial government. National development projects are those where policy in planning, funding as well as a greater part of the implementation process is the responsibility of the central government. The local government will only act as complementary to the central government. Regional development projects are those where policy in planning, funding and the greater part of the implementation process is the responsibility of the provincial government. These regional projects reflect the aspirations as well as the capability of the region itself for development. From the central government point of view, regional development projects are considered as "fillers" of gaps which have not yet been touched by national development projects.

Aside from regional development projects, the regional development plan also lists, national development projects. National development projects are described in more detail. However, it is only confined to the physical planning aspect because the social and economic planning aspect has been extensively covered and outlined in the national development plan.

It is clear, then, that universities in Indonesia are extensively involved, directly or indirectly in the development process, particularly in planning and evaluation. Even though the universities are located in the regions, they are also in charge of national tasks.

Why are the universities in Indonesia actively involved in regional and national development programmes?

All university staff interviewed are firm in the belief that an efficient university in a province should be the centre for cultural activities and concurrently act as an agent for developing resources within the province.

They are convinced that a university can no longer look upon itself as an exclusive club just for the benefit of the priviledged. It has to become more

accessible and deeply concerned and involved in the problems in its environment.

In addition, it must also become an instrument of understanding and enhancing the traditions and cultural heritage of its environment. In other words, a provincial university, to a great extent must be sensitive, to think and to act as part of the community where it is located and to strive to be an agent for regional development and modernization. It is apparent, therefore, that the extensive involvement of universities in the development process should be attributed to the existing consciousness of the university's function.

The nature of the universities' assistance in regional development can be grouped into the following types:

a. supplementary type
b. complementary type
c. pioneering type

Supplementary type assistance is defined as activities performed as "fillers" of gaps untouched by the regional government authorities. These gaps might be spatial in nature, meaning that universities conduct development activities untouched by or without development activity performed by the local government. The gaps might be also considered as the objectives, with the understanding that universities perform certain regional development activities not yet covered by the local government authorities (e.g. survey and research).

Complementary type assistance is categorize as those activities mutually executed by the universities and regional authorities, through active participation in the implementation of development activities, and total involvement in the whole planning process (by having seats in the Regional Development Planning/ Coordinating Boards).

Pioneering type assistance are those activities undertaken by universities and directed towards the improvement of old methods or the development of totally new methods to help rural community development (pilot projects). When new methods are found and considered feasible, further implementation is transferred to local government authorities.

(1) Intensity of Cooperation

As the university's assistance is a conditional activity, it is obvious that approval from the provincial government should be granted first.

Decisions as to the field of regional development which will be assigned to a university in a province are subject to the provincial governments'

consideration. Further, it depends on the university whether its contribution fulfills the expectation of the provincial government.

The capability of a university and the existing relationship are predominant factors in determining the intensity of a university's participation in development.

In view of the above situation, the intensity of cooperation or the university's assistance in regional development may differ.

(2) Factors Determining Cooperation

On the basis of our short period of observation, we have the impression that further influential factors determining the degree of cooperation between universities and regional governments may be noted, in addition to what have been mentioned above.

a. The officials' sense of responsiveness, either from the universities or from the provincial governments is a basic necessity. Specifically the human relation attitude of the officials is a factor determining the intensity of cooperation.

Social consciousness, therefore, either on the part of the universities and the public as well on the part of the provincial government authorities is very important. It is this consciousness that largely determines the role the university could play in the development process. Whenever the university's social consciousness is high and the provincial government and public share it to a great extent, then the university's participation in developmental activities in the society will be significant. Once the three of them share the same social consciousness, then the universities' involvement in the development-process will be assured. On the other hand, if the social consciousness of the university is low or such an attitude is not shared by the public and the provincial government, then a different picture will emerge.

b. Good and proper organization and coordination is decisive in maintaining the intensity of cooperation. Coordination and organization, are essential factors and a real necessity.

Many university staff may have positions in the Regional Development/ Coordinating Board, but if they are not supported with good organization and coordination effective cooperation will not take place. On the other hand, although the Chairman of the Board is not selected from the university but formal cooperation and good coordination are in existence, then the cooperation will be effective.

c. The cooperation will be more successful when it is based on institutional cooperation and agreement in order to create and maintain a more fundamental and favourable condition.

Actually, cooperation either by agreement or formality merely acts as an accelerator because the existence of formality accompanied by lack of coordination will result in less effective cooperation.

It is obvious that this observation is not free from subjective factors. A more fundamental study is required to provide a more accurate picture.

(3) Types of Cooperation

There are three types of cooperation between the universities and the provincial governments as mentioned in chapter III, section 1. The difference between these settings in the team's opinion is due to the balance of skills in the university and in the provincial government.

The skilled manpower situation in both institutions is very influential in determining the form of this cooperation. As an example we take the position of Syiah Kuala University.

Syiah Kuala University's involvement in development activities in the province of Aceh is really deep and dominant. This might possibly be due to the shortage of skilled manpower in the local government agencies in comparison to the relatively sufficient supply in the university. (Included as type a).

When skilled manpower in both institutions are about equally available then type b cooperation will be in operation. And if the regional government has adequate skilled manpower and hence is less dependent on the university, then cooperation of type c will take place.

Which of the types can be considered as the best model of cooperation?

The answer depends on the situation of the respective provinces because each province has its specific condition and is at a different stage of development. Factors previously mentioned such as the relationship between the authorities from both institutions, skilled manpower available and the budget will determine the type of cooperation most appropriate to the situation in the respective provinces.

(4) Advantages of Cooperation

There is no doubt, that at present, cooperation between universities and

provincial governments benefits both parties. For the provincial governments the following advantages can be cited:

a. In spite of the lack of skilled and trained personnel the development planning process can still be undertaken, which is very important for the development of the region. This is especially true for the province of Aceh, and to a lesser extent for the other provinces. In regions where planning agencies are not fully established, the universities in the region have come to be regarded as the principle institution for regional planning, in view of the existence of qualified personnel and suitable research faculties.

b. The provincial governments are constrained in their staff recruitment by the non-availability of qualified persons for specific jobs and by financial difficulties as well. Through cooperation with the universities, at least for the time being, the government is not forced to recruit unqualified persons and, hence, the use of resources is more efficient.

c. The provincial governments are exposed to more scientific methods of inquiry, planning and execution of plans.

From the universities point of view, the following advantages growing out of the cooperative efforts can be mentioned:

a. The universities are able to fulfill an expectation of the society, namely to serve the provincial government and the society.

b. The faculty member involved in the cooperative arrangements gain considerable practical experience, and their professional capabilities and personnel self confidence are enhanced. Most of the university staff in the provinces studied were able to incorporate their experiences into their lectures making their teaching more relevant to the existing situation within the nation.

c. The universities obtained, and will continue to receive financial support from the provincial governments. The responsibility to develop Syiah Kuala University, Hasanuddin University, Lambung Mangkurat University and others, for instance, was already included in the routine budget of the respective provincial government and approved by the provincial parliament. Hence, this responsibility will not change with the change in the Governor.

d. The students, especially the graduate students are able to participate in activities in the region. Hence they learn about things which are not covered in the on-campus curriculum and they obtain experience which could never be

obtained in the classrooms. When graduates later on, they can be expected to adjust to new and different situations more easily and more quickly.

e. Because of the experience gained through cooperation, the universities find it easier to place their graduates in the government and in private companies. An example of this was at Syiah Kuala University where all graduates were placed in appropriate jobs. Graduates from the Faculty of Economics of Padjadjaran University, had the same experience. About 30% of them took positions in the provincial government, 20% joined university staff throughout the country, and the remaining 50% were placed in government offices and private companies. It was estimated that about 50% of the graduates of Diponegoro University were appropriately placed in jobs in the provincial government and about 20% in private companies.

(5) Disadvantages of Cooperation

On the other hand, both the provincial governments and the universities experienced disadvantages from the cooperative arrangement in various degrees. For the provincial governments one disadvantage was a tendency for delays in the recruitment of permanent staff. The provincial governments cannot continuously rely on part-time staff from the universities. The services rendered by part-time staff tend to lack continuity and frequently cannot be brought to bear on a particular problem at a particular time when the government deems it urgent.

For the universities the following disadvantages can be summarized:

(a) The deep involvement of the senior staff in working with the provincial governments, plus the fact that senior staff are frequently involved in intensive research contracted outside the university, means that some of the lectures, course development and other curricular activities are shifted to the junior staff. One likely consequence is that the quality of the instruction will deteriorate, or at least it becomes more difficult to achieve the university's goal of continually enhancing the quality of its instruction. The impact of the disadvantage is likely to be positively correlated with the intensity of the outside involvement.

(b) Due to the intensity of the activities with the provincial governments, there was a feeling that the resources of the university intended for teaching and research activities were being utilized primarily for the benefit of the provincial government. This impression was more pronounced where the inputs invested by the provincial government in the university were meagre. The larger the investment of the provincial government in the university the less such an impression was expressed.

(c) Because the activities of the staff outside the university were very difficult to coordinate carefully and institutionally, some of the staff accepted research projects and other outside jobs that were not in line with their teaching responsibilities. This being the case, they were never able to incorporate their experiences into their lectures and other teaching materials. In participating in regional development the universities experienced some obstacles, the kind and intensity of which depended very much on the local circumstances. Because of financial constraints, Padjadjaran University, for instance, was able to serve areas only close to towns. Another example was the situation where the provincial government was not always able to implement many of the recommendations offered by the university as a result of its research findings. Frequently, the reports were not permitted to be published for wide distribution. This situation created discouragement among the university staff. The very uneven distribution of the use of the staff to serve the public created the impression that some expertise was not needed or was less needed. The majority of the university staff active in public service happened to be from certain Faculties. Another kind of obstacle was observed in the reluctance of both parties to approach each other, resulting in a "communication gaps". The provincial government felt that the university was rather slow to react or to respond to problems considered basic and important.

2. Recommendations

To make participation of the universities in regional development more effective, the team offer the following suggestions:

a. It is necessary to establish a distinct organization within the universities complex of faculties to coordinate their activities in regional development. This organization should create an atmosphere of cooperation among universities in that region, and between universities and other regional development agencies.

b. In relation to the above item, it is necessary to develop further an organization of institutions already existing in the region (such as Pusat Ilmiah dan Pembangunan Regional, Lembaga-Lembaga Pengabdian Masyarakat) to prevent uncoordinated efforts.

c. Participation in the activities of regional development should correspond to the capacity of the universities as well as to the stage and speed of the development in that region. Care should be taken not to reduce the major activities of the universities as an institution of education.

d. To insure the continuity, stability and harmony of the programme

(which covers planning, execution and evaluation), greater efforts should be made, based on the principle of mutual cooperation.

e. The activities of the university staff for regional development should be organized institutionally. This implies that all projects in research and public service should be coordinated by the university, including the appointment of the respective staff. In addition, the cooperation should be based on a formal agreement.

f. The present system of coordination for regional development in which the university is heavily involved in assisting the provincial government should be considered as transitional. In the long run, the provincial governments should enhance their own staff capabilities and competence. In this case, cadre forming for the provincial staff should be encouraged. This cadre forming should be done in cooperation with the universities. The universities will then gradually be released from their deep involvement in implementation and execution. Ultimately, the universities should be expected to contribute primarily to the scientific and methodological aspects of the development processes and plans in the region. Hence, the expertise of the universities and the provincial governments will complement each other. The expertise of the university will be able to concentrate on theory, research and methodology, while the expertise of the provincial government will be in the application of theory, practical experience and operations.

APPENDIX

I. Syiah Kuala University

There are two universities/institutes in Aceh which are expected to contribute significantly to the development of the province, viz. Syiah Kuala University and Jamiah Ar Raniry State institute of Muslim Religion.

In this study only Syiah Kuala University was visited, since it is the university contributing significantly to the general economic development and agricultural development in particular of the province.

1. History

Syiah Kuala University was established in 1961 upon the initiative of the provincial government. Prior to that time, there were two faculties in Aceh, viz. the Faculty of Economics (1959) and the Faculty of Veterinary Medicine and Animal Husbandry (1960), both belonging to the University of North Sumatra. At present Syiah Kuala University has seven faculties viz. the two faculties mentioned above, the Faculty of Law (1961), the Teachers College (1961), and the Faculties of Education (1961), Engineering (1964), and Agriculture (1965).

The numbers of staff, students and alumni of the respective faculties are shown in Table I and Tables 6, 7, 8, 9, 10.

Table I Staff, Students and Alumni of Syiah Kuala University (1972)

Faculties	Numbers of Persons		
	Fulltime Staff	Students	Alumni
Economics	34	495	61
Vet. Med. and Animal Husbandry	25	75	50
Law	19	377	26
Teachers	32	603	16
Education	16	214	24
Engineering	11	293	7
Agriculture	6	111	–
Total	143	2168	184

2. The Role of Syiah Kuala University in Regional Development

2.1 Relations and Cooperation with the Regional Government

Prior to 1968 Aceh had a Coordinating Body for Regional

Development (Bakopda) with the main responsibility of coordinating the activities of the various developmental agencies in Aceh. This body was never really operative, due to the political and economic situation in the region. During that time no formal cooperation existed between Bakopda and Syiah Kuala University.

In 1968, by a formal letter issued by the Governor of Aceh (No. 53/III/1968 dated June 26, 1968) the Aceh Development Board (ADB) was established as the only government institution responsible for developmental plans in the province of Aceh, and is directly responsible to the Governor.

The Chairman, the Vice Chairman and about 60% of the members of ADB are from Syiah Kuala University. They consist of senior staff members of the university drawn from a resource which is really not very large. The total number of personnel of ADB is about 31 persons. The Chairman of ADB is the Rector of Syiah Kuala University.

The Board's main functions are:

(1) To formulate a Long Term Development Plan for the Province of Aceh, consisting of:–
   (a) Basic Pattern of Development, showing priorities in the development of the region, and
   (b) Five-Year Development Plan, showing targets in the various sectors of the economy and estimates of the required costs.

(2) To formulate Annual Development Plans, based on the Five-Year Plan, showing specific programmes, targets, costs, time schedule, etc.

(3) To evaluate the implementation of the development programme.

(4) To carry out surveys and research to aid the implementation of the development programmes.

(5) To carry out feasibility studies for the private sector of the economy.

(6) To advise the Government on current economic and financial problems.

The Board's main concern is the realisation of the government effort, that is the setting of priorities and effecting efficient budgetary allocation.

For the development of the various plans mentioned above considerable time is devoted by the staff of Syiah Kuala University committed to ADB, especially during the months of April to June each year.

All these plans have to be justified by the Chairman to the Provincial

Legislative Body, to get approval from the Body, before they can be implemented.

The formulation of the development programme is carried out through the ADB by the university staff in consultation with the provincial government agencies and branches of the central government's departments.

This relation and cooperation is highly appreciated by both parties. It is considered to be important by the university staff, because by contributing actively to regional development, the staff-members get self-confidence and more experience in research as well as in teaching.

On the other hand, the local government offered financial support to the university, as a token of appreciation.

In 1970-1971, from a budget of about 110 million rupiahs, about 16 million rupiahs were contributed by the provincial government of Aceh. In 1971-1972 this support was increased to about 25 million rupiahs from the university budget of about 129 million. This contribution of the provincial government of Aceh to Syiah Kuala University was realised in the form of housing for the university staff, classrooms, offices, maintenance and operation cost of the university vehicles, house rent for staff, etc.

It is important to mention here, that in Indonesia the universities in the provinces are not provincial universities, but they are all state universities. The universities in the provinces derive their sources of funds mainly from the central government. If the regional governments offer financial support to the universities, it is because there are good relations between the two institutions.

This is the case not only with Syiah Kuala, but also with other universities in the provinces.

2.2 Role of Syiah Kuala University in Research

Since 1969 through the Aceh Development Board, at least 75 research projects have been conducted by the staff of the university. About half of the projects were requested by private companies, a little less than half by the provincial government and four by the Directorate of Higher Education. These projects can be grouped as follows:

(a) Feasibility studies for the establishment of various factories and other economic activities: rice mills, coconut oil factories, crumb rubber factories, dock rehabilitation, cattle holding establishments, etc.

(b) Surveys: coffee processing, export commodities, adult education, land use, animal husbandry, etc.
(c) Others: monographs of eight regions in Aceh, transmigration, etc.

In all the above mentioned studies, all faculties were more or less invovled, although the Faculty of Economics was the most deeply involved.

The financial burden of the projects was carried by the private companies requesting these fe sibility studies, by the provincial government and by the Directorate of Higher Education.

2.3 Role of Syiah Kuala University in Public Services

Since 1971-1972 the College of Education conducted an upgrading course of one month for teachers at the senior high school level. The course in question was Methodology in Teaching. In the same year the College of Economics conducted a vocational training course for six months for members of the armed forces of Aceh approaching their retirement.

The university staff especially from the Faculty of Veterinary Science and Animal Husbandry are helping in training the agency personnel in pasture imporvement programmes and in artificial insemination to improve local stock.

Other public service activities are in the form of seminars held annually by various faculties. Those seminars are attended not only by university staff, but also by people from the government and the general public.

In this way, the university hopes to introduce new ideas and new methods to the general public, as these seminars are always development-oriented.

A more intensive extension programme launched by the university, is the National Study Service Scheme, in which students are obliged to stay for six months in the villages as part of their study.

To coordinate the research and extension projects contracted by the university, a Bureau of Research and Extension was established within the university in 1971.

II. North Sumatra University

1. History

Since before the Second World War, prominent citizens of Medan, had tried to establish higher education in North Sumatra. This idea was not

supported by the Dutch Government, because the Government at that time considered that higher education could survive only in the Island of Java.

During the Japanese Occupation, the plan could not be realized.

After independence the North Sumatra Foundation was erected in 1952, with the main purpose of establishing a university in the province of North Sumatra. The Chairman of this Foundation was the Governor himself.

On the 20th of August 1952, the Faculty of Medicine was established by the Foundation, followed by the Faculties of Law and Social Sciences on January 12, 1954.

In September 1955, these faculties were adopted by the central government and in 1957, North Sumatra University was established in the provincial capital, Medan.

In subsequent years more faculties, were established. At present North Sumatra University has eight faculties, viz: the Faculties of Medicine, Law, Agriculture, Economics, Engineering, Dentistry, and Mathematics and Physical Sciences.

The number of staff, students and alumni of the respective faculties are shown in the Table 2 and Tables: 6, 7, 8, 9, 13.

2. Role of North Sumatra University in Regional Development

2.1 Relations and Cooperation with the Regional Government

The provincial government of North Sumatra has a coordinating body for planning regional development with the name of Bakopda (Badan Koordinasi Perencanaan Pembangunan Daerah = Coordinating Body for Planning Regional Development).

Table 2 Staff, Students and Alumni of North Sumatra University (1972)

Colleges	Number of Persons		
	Fulltime Staff	Students	Alumni
Medical	234	1298	514
Law	66	804	785
Agriculture	62	796	155
Economics	57	770	225
Engineering	91	1902	53
Dentistry	30	364	37
Arts	5	176	–
Mathematics and Natural Sciences	28	566	–
Total	573	6676	1769

The Chairman of this Body is the Governor himself. The Executive Chairman is a staff member of the provincial government, while the Vice Executive Chairman is a staff member of North Sumatra University. The latter serves as an individual and not as a representative of the university. There is a Secretary for the coordinating group. The staff is grouped into the following six sectors, viz general government administration, infrastructure, public wealth, communication, presidential instruction and industry. The fulltime positions are all filled by the staff of the provincial government. University staff are requested to help the body as "part-timers".

The provincial government offices draft their development plans on a sectoral basis. Then the plans are checked and made consistent by the coordinating body. For this purpose, seminars are organized at which university staff are invited to participate. The university staff are invited individually, through their respective faculties, in line with their expertise. Hence, the main contribution of the university staff in regional planning is through these seminars.

2.2 The Role of North Sumatra University in Research.

In conducting research needed by the provincial government for the development of the region, the government cooperates with the various faculties of North Sumatra University. The cooperation was carried out directly to the respective faculties.

In 1972 more than 60 research projects were completed by the various

faculties of the university.

The financial burden was borne by various groups: the Department of Education and Culture, the provincial government, the National Planning Board, private companies and foreign foundations. The research projects financed by the provincial government have been concerned with the village society and its development patterns. The various sectors covered by the research activities are: food production (8 projects), economics of the region (10 projects), development of village society (8 projects), estates (4 projects) and others.

2.3 The Role of North Sumatra University in Public Services

The university participates in the training of officials of the provincial government through educational programmes sponsored by the government itself. The participation of the university is in the form of teaching some of the courses offered through governmentally organized training sessions.

In conducting activities of public service the faculties have a large degree of autonomy. This is one of the reasons why direct cooperation between the provincial government and the individual faculties of the university is a common pattern. There has never been a formal written agreement of cooperation between the university and the provincial government. In spite of this fact the provincial government has offered substantial financial support to the university, some of it in the concrete form of buildings. In the fiscal year 1972-1973 this financial support amounted to 150 million rupiahs while in 1973-1974 the support was increased to 500 million rupiahs. The policy of the Rector in participating in research and public service activities is that the university should be involved only in the scientific and/or academic aspect of the activities.

III. Andalas University

1. History

The history of higher education in West Sumatra started, when a Sriwijaya Foundation was set up in March 20, 1951. This Foundation established in the same year, a Pancasila Law Faculty (Perguruan Tinggi Hukum Pancasila).

This Law Faculty was turned over to the central government in December 20, 1955.

In subsequent years in Central Sumatra, the Teachers College in Batusangkar (October 23, 1954) and Agricultural Faculty in Payakumbuh (November 30, 1954), were established. A further step toward extending higher education into new fields, by decree of the Ministry of Education and

Culture the Medical Faculty and the Faculty of Mathematics and Natural Sciences were established in Bukittinggi in September 7, 1955.

However, because no staff members were appointed in 1955 or thereafter, the school appeared only on paper and was finally eliminated by a decree of the Minister of Education on January 1, 1959.

In 1956 all those faculties, located in several cities were united under one public university, called the Andalas University, consisting of the Faculty of Agriculture in Payakumbuh; Medical Faculty in Bukittinggi; Faculty of Mathematics and Natural Sciences; Faculty of Law and Teachers College.

Andalas University is the first university located outside Java or the third oldest government university in Indonesia. In the first year this university had a rapid growth. Many buildings for classrooms, laboratories and staff members' houses were build in Batusangkar, Paykumbuh and Bukittinggi.

Due to the political situation in that region, where the regional political elements joined compatriots in Sulawesi and other sections of Sumatra rebelled against the central government, higher education in West Sumatra stopped entirely in April 1958.

After the central government won control of the situation in Padang, on January 1959, the Faculties of Law, Medicine, Agriculture and Education were established in Padang, while the Faculty of Mathematics and Natural Sciences was officially closed, for there was no staff members at all.

The Faculty of Economics, that was founded in 1957 in Padang by the local government of Central Sumatra, as an informal branch of the Universitas Indonesia, was transferred to Andalas University on January 1, 1961.

The Faculty of Mathematics and Natural Sciences was re-established by decree of the Minister of Education on December 6, 1962, with the Departments of Biology, Pharmacy and Chemistry. In 1963, the Faculty of Animal Husbandry was set up.

In 1964, all teachers colleges in Indonesia were separated from universities and became autonomous teacher-education institutes. The number of Faculties in Andalas University was now reduced to six.

The numbers of staff and students of the respective faculties are shown in Tables 6, 7, 8, 9, 12.

The larger part of the staff belong to the junior staff. Only 14% are senior lecturers.

2. The Role of Andalas University in Regional Development

2.1 Relations and Cooperation with the Regional Government

There are three universities/institutes in West Sumatra which are expected to contribute to the development of the province, viz. Andalas University, the Institute of Teachers and Education and the State Institute of Muslim Religion.

In this study the analysis is focused on Andalas University, having Faculties of Economics, Agriculture, Medicine, etc., contributing directly to the economic development of the region. It is realized that the Institute of Teachers and Education contribute and will continue to contribute significantly to the development of the education system, while the State Institute of Muslim Religion to the spiritual development of the province.

The contact between the university and the provincial government began in 1964 in a seminar on regional development. At that time the provincial government had Bapeda (Badan Pembangunan Daerah), a regional development board with the responsibility of coordinating the planning of the various government offices in West Sumatra. The result of the above mentioned seminar was the First Development Plan of West Sumatra, published in 1964 which was written by staff from Andalas University. The plan was submitted to the government as a valuable contribution from the university. When the Rector of Andalas University was appointed as Governor of West Sumatra in 1966 still holding the position of Rector till 1968, the coordination between the university and the provincial government was made closer. An assistancy team was established to help the government with the formulation of the first Five-Year Development Plan of West Sumatra, headed by a staff member of the university. The team assisted the government in setting up development plans, budget, reporting system, etc.

A Regional Development Planning Board of West Sumatra was established in 1972 with staff from Andalas University as Chairman and Vice-Chairman and the remaining members staff from Andalas University, the Institute of Teachers and Education and the State Institute of Muslim Religion. The Board has a secretariat, consisting of officials from the provincial government. The main responsibility of the Board is to construct development plans for the region.

Realizing the scarcity of scientific personnel, the provincial government relies heavily on the universities, especially in research and planning. On the

other hand, the university realizes that the concentration of scientific personnel is in universities, and that it is the responsibility of the university to help the provincial government wherever it is needed and able to assist. This relationship between Andalas University and the provincial government of West Sumatra is made closer because the Governor has served as Rector of Andalas University.

Despite the assistance provided by the university to help the provincial government, the financial input of the government to the university has been very meagre (Rp. 12.5 million for the whole university). The main reason mentioned was the small amount of the regional income of West Sumatra, so that the government has not been able to help the university financially. The Governor's attention to the university has, however, been very good.

It was felt that this deep involvement of Andalas University in helping the provincial government and by sacrificing her own consolidation, should be considered as a temporary arrangement, perhaps for five more years. In the mean time the government should recruit her own planning experts and the university will then be able to consolidate her strength to do her main duties.

2.2 Role of Andalas University in Research

In 1972 at least 31 research projects were carried out by the staff of the university, one in the area of law, one in mathematics and science, one in animal husbandry, seven in economics, 18 in agriculture and three projects were interdisciplinary in nature. These projects were requested by government officers and private companies and financed by them. In all the above mentioned studies, all faculties were more or less involved, among which the Faculties of Agriculture and Economics were the most deeply involved.

2.3 Role of Andalas University in Public Services

In the area of public services many activities of the university should be mentioned. The Faculty of Medicine once a week sent her doctors to public health centres in the province and offered free medical services. All the financial burden was carried by the university. The university sent teams to remote and difficult areas in the province to stay for at least five months in the villages to help the villagers develop their area. Each team consisted of five members, each from the five faculties and headed by a doctor from the Faculty of Medicine. The university administrator was of the opinion that the villagers were easier to approach by solving their medical problems first. Hence, the leader of the team was always a doctor. The set up is popularly known by the name of Kuliah Kerja Nyata (The National Study Service Scheme) sponsored by the Directorate of Higher Education and financed partly by the Department of Education and

Culture and partly by the provincal government. In 1973 the university sent 6 teams, consisting of 20 graduate students and headed by six doctors to six remote and difficult villages. The Department of Education and Culture contributed 750,000 rupiahs to the cost and the provincial governn ent contributed the same amount. As a public service the university also conducted a series of workshops for leaders of the society, high school teachers, administrative personnel of West Sumatra, Jambi and South Sumatra, etc.

IV. Sriwijaya University

1. History

Higher education started in Palembang, South Sumatra, when the Svakyarta Foundation was established in April 1, 1953, upon the initiative of prominent citizens of South Sumatra. By this Foundation, the Faculty of Economics (October 31, 1953), the Academic of Business Administration (October 9, 1955) and the Faculty of Law (November 1, 1957) were established. In November 1960 this Foundation was adopted as a government university, and was given the name Sriwijaya University. At that time the university consisted of 2 faculties, i.e. the Faculty of Economics and Faculty of Law. In the subsequent years several faculties were established, and at present Sriwijaya University has 7 faculties, i.e.

1. Faculty of Economics (1953)
2. Faculty of Law (1957)
3. Faculty of Engineering (1961)
4. Faculty of Medicine (1962)
5. Faculty of Agriculture (1963)
6. Faculty of Education (1961; 1968)
7. Faculty of Teachers Training (1961; 1968)

The Faculty of Education and Teachers Training was first established in 1961. As was the case with other Faculties of Education and Teachers Training in Indonesia, this faculty was also seperated from Sriwijaya University and become an autonomous Institution in January 1963, as a branch of the Institute of Teachers Training and Education in Bandung. However, in January 1968 this Institution was integrated into Sriwijaya University and become 2 faculties, i.e. the Faculty of Education and the Faculty of Teachers Training.

The number of students, staff members and alumni, is shown in Table 3 and Tables 7, 9, 11.

Table 3 Number of Staff, Students and Alumni, 1972

Faculties	Staff	Students	Alumni
1. Economics	39	611	30
2. Law	19	431	26
3. Engineering	29	312	–
4. Medicine	63	449	27
5. Agriculture	19	281	8
6. Teachers College	24	578	3
7. Education	19	568	1
Total	212	3230	95

2. Role of Sriwijaya University in Regional Development

2.1 Relations and Cooperation with the Regional Government

The provincial government of South Sumatra has a coordinating body for planning regional development with the name of Bappepda (Badan Perencanaan Pembangunan Pemerintah Daerah).

The Chairman of this body is the Governor and the Vice-Chairman is a member from Sriwijaya University. The latter serves as an individual and not as a representative of the university. Most of the members of this body are from the university. The staff is grouped into the following sectors, viz. general government administration, infrastructure, economics and evaluation.

The staff members from the university are also involved in the planning board of the city of Palembang.

Substantial financial support was offered by the provincial government to the university. An amount of Rp. 2.9 million was granted to the Faculty of Economics for the Statistical Laboratory and Rp. 1.8 million for equipment. For the development of the university the provincial government has offered an amount of Rp. 22.4 million and for routine budgeting the amount of Rp. 7.5 million. A formal agreement exists between the university and the provincial government.

2.2 The Role of Sriwijaya University in Research.

In conducting research needed by the provincial government for the development of the region, the university has finished several research projects, and is conducting a number of:

1. Transmigration project
2. The economic aspect of animal husbandry
3. Survey on farmers' cooperation
4. Project in fisheries
5. Economical survey in South Sumatra
6. Research projects with Pertamina

and other research activities.

In conducting these research activities, the Faculties of Economics, Agriculture and Engineering are the most deeply involved.

The complete financial cost of these research activities are met by the provincial government.,

The design and the results of this research are discussed by the university members and the members of the provincial government involved.

2.3 The Role of Sriwijaya University in Public Services

The university is active in giving courses to high school teachers and housewives. This university also has a programme in the National Study Service Scheme. The Governor has a great interest in this programme, and has financed it to the degree of Rp. 2.5 million. He himself selected the regions which have

V. Padjadjaran University

1. History

There are four state universities/institutes in West Java; Bogor Agricultural University, Bandung Institute of Technology, Padjadjaran University and Bandung Institute of Teachers and Education, besides the various smaller private universities and junior colleges. Among the four universities/institutes mentioned above, Padjadjaran University was the only one which established under the initiative of the provincial government. This was in 1957.

Based on the criteria mentioned in the previous chapter, the team concentrated its enquiry primarily upon Padjadjaran University, without neglecting, however, the other universities/institutes.

Shortly after 1950, prominent city leaders in Bandung decided to establish private higher education institutions.

A board of prestigious local figures, including the Head of the Bandung Federal Court, the Governor of West Java and the Mayor of Bandung sponsored

the establishment of a private institution named Krisnadwipayana University in 1951. The name of this university was changed into Freedom University (Universitas Merdeka) in 1951, with an emphasis on law studies.,

Typically, as was the case with other private universities, the founders hoped that their colleges would soon be adopted by the central government as public institutions. This movement to establish institutions of higher education was important for the local leaders as a way of increasing their prestige, and received financial support from the central government. On September, 1957, the private institution was adopted by the central government and given the name of Padjadjaran University, named after an ancient kingdom of West Java.

At present Padjadjaran University has 11 faculties. At the time the university was established, it had only three faculties; the Faculties of Medicine, Law and Economics. Then successively were established the Faculty of Mathematics and Natural Sciences (1958), the Faculty of Dentistry (1959), the Faculty of Agriculture (1959), the Faculty of Social Politics (1960), the Faculty of Arts (1960), the Faculty of Animal Husbandry (1963), the Faculty of Psychology (1965) and the Faculty of Journalism (1965).

The number of staff, students and alumni are shown in the following Table 4 and Tables 6, 8.

Table 4 Number of Staff, Students and Alumni of Padjadjaran University (1972)

Faculties	Number of Persons		
	Fulltime Staff	Students	Alumni
Law	82	1081	764
Social Politics	49	614	305
Economics	85	1662	550
Arts	71	637	228
Psychology	25	239	16
Medicine	47	1073	435
Dentistry	32	316	77
Agriculture	54	642	127
Animal Husbandry	108	263	8
Mathematics and Natural Sciences	14	1002	131
Journalism	152	318	96
Total	719	7847	2737

2. Role of Padjadjaran University in Regional Development

2.1 Relations and Cooperation with the Regional Government

In 1972 the provincial government of West Java established a Regional Planning Board. The Chairman of this Board is a staff member of one of the universities in West Java, and he works part-time for the provincial government. Ninety per cent of the membership of the Board consist of faculty members of various universities/institutes in West Java. The board members are appointed by the universities upon a request from the Governor. The period of time the members have to serve is not fixed. It is not clear whether the universities have the right to recall members of the faculty who have been appointed to the Board.

The task of the Regional Planning Board is to design a Long-Term Plan for West Java, extending for 25 years, and to construct Five-Year Development Plans within the long-term scheme. Besides being responsible for the development of these plans, the Board is also responsible for advising the Governor in solving urgent problems, such as the establishment of industrial estates, foreign investment, etc.

Besides the Regional Planning Board, there is also an Advisory Council to the Governor. The Chairman, the Vice Chairman, the Secretary and about 90 per cent of the members of the Council consist of university staff.

Although a large number of university staff serve the provincial government on a part-time basis, there is no formal written agreement regarding the manner in which cooperation is to take place between the two parties in question.

2.2 The Role of Padjadjaran University in Research

Among the universities/institutes in Bandung (excluding Bandung Institute of Technology) which are active in research and public service, making a direct contribution to the development of the region, are Padjadjaran University and Bandung Institute of Teachers and Education. These universities/institutes try to direct their research priorities in line with the development plans of the central government and the provincial government.

Due to the fact that at this stage of development, agricultural development has been given the highest priority, it is not surprising that the faculties of Padjadjaran University which have the largest number of research projects are the Faculties of Agriculture, Animal Husbandry and Economics. Other Padjadjaran faculties, such as the Faculties of Law, Social Politics, and Medicine,

as well as Bandung Institute of Teachers and Education also make their contribution to the development of the region through research.

Some of the research projects carried out by the university and financed by the provincial government can be listed as follows:

(a) Projects in the framework of Bimas (supervised mass intensification of rice production).
(b) Projects to increase animal production and fodder.
(c) Projects concerning animal protection.
(d) Projects concerning agricultural extension.
(e) Projects to increase standards of public health.
(f) Projects to prevent the use of narcotics and to combat juvenile delinquency.
(g) Projects to study the role of youth in development.
(h) Projects to study transmigration and cooperatives.
(i) Projects to improve the administration of the regional government, at the country, township, district and village levels.
(j) Projects to improve the local arts.
(k) Projects to increase trade in the regions.
(l) Others.

In spite of the large number of research projects completed by the universities for the benefit of the provincial government, the material input invested by the provincial government in the universities has been meagre. In this context, the Faculty of Agriculture was fortunate to receive a rice field of approximately two hectares for use in its experiments.

Most of the research projects conducted by the universities were requested by the staff of the universities and the provincial government agreed to finance them. Projects were usually carried out by the senior staff of the university and not distributed equally among all the staff. The main reason was that the provincial government preferred to entrust the projects to the senior staff rather than to the junior staff.

In some of the research projects, such as the projects conducted by the Demography Centre of the university and projects in regional income counting, graduate students were involved. Also in Bimas (supervised mass intensification) projects, students were involved in studying the marketing of fertilizer, etc.

2.3 The Role of Padjadjaran University in Public Services

Beginning in 1961 Padjadjaran University conducted special courses for

government officials, officials of private companies and members of the armed forces. The courses were offered during the afternoon hours. This type of instruction was initiated by the Faculty of Social, Political Sciences and followed by the Faculties of Law and Economics in 1967. Students obtaining a university degree through these kind of courses numbered 75.

Since 1973 the university has no longer offered graduate courses of this kind, due primarily to financial difficulties. However, education of this kind is continued at the undergraduate level while the graduate level has been transferred to the regular morning classes.

Besides the above mentioned special courses, the university also offers some courses to upgrade officials of the provincial government.

In addition Padjadjaran University started with the National Study Service Scheme in 1973.

VI. Diponegoro University

1. History

Diponegoro University was established in 1960 in Semarang as an effort to channel the high school graduates of that town and the vicinity to a university. This effort appears to have been successful in fulfilling the aspirations of the youth of the region. In 1973, 33% of the students came from Semarang and 59% from Central Java.

At present Diponegoro University has seven faculties, viz.: the Faculties of Law (1957), Economics (1960), Engineering (1961), Medicine (1961), Animal Husbandry (1964), Arts (1965) and Social Politics (1969).

The number of staff, students and alumni are shown in Table 5 and Tables 7, 9, 14.

Table 5 Number of Staff, Students and Alumni of Diponegoro University (April 1973)

Faculties	Number of Persons		
	Fulltime Staff	Students	Alumni
Law	27	968	444
Economics	24	782	212
Engineering	34	1261	178
Medical	136	980	170
Animal Husbandry	38	242	25
Arts	28	526	76
Social, Political Sciences	25	828	151
Total	312	5587	1256

2. The Role of Diponegoro University in Regional Development

2.1 Relations and Cooperation with the Regional Government

In 1972 the provincial government of Central Java established a Regional Planning Board. This Board consists of seven persons; one Chairman, one Executive Chairman, one Secretary and four assistants. The status, functions, job description and the relationship of the Board with universities and other government offices were established in a formal letter issued by the Governor, in January 1973.

According to this formal letter, the Board has to assist the Governor and is responsible to him. The main job of the Board is to formulate a development plan in the areas of culture, economy, finance, etc. for the region. One of its function is to conduct research. For the formation of a development plan, the Board has to cooperate with the various government offices and with universities in Central Java, one of the latter Diponegoro University. There is also a Regional Science and Development Centre in Central Java, where activities are also supporting regional development. Due to financial difficulties, however, this Centre is very much limited in its activities.

Besides the Regional Planning Board, the provincial government has a group of experts for consultative purposes and part of its membership comes from the universities.

Before the Board was established in 1972, the staff members of the

universities on an individual basis actively participated with the provincial government in regional development.

After the board was formally established, its staff worked full time for the Board and remained at the university only in a part-time faculty status.

Besides working closely with the Board, Diponegoro University has appointed three staff members to join the group of experts. They are listed as working part-time for the provincial government, although in fact they devote all of their time to activities connected with the government. The three experts were appointed by the university upon request by the Governor.

2.2 The Role of Diponegoro University in Research

In the fiscal year 1972-1973 the Regional Planning Board financed seven research projects which were carried out by university staff. Among the seven projects, five were completed by Gajah Mada University, one by the Semarang Institute of Teachers and Education, and one by the Faculty of Economics of Diponegoro University. The cost of the seven projects was 11 million rupiahs. The results of the research have been submitted to the provincial government. Seminars to discuss the findings of the research were conducted. Participants in the seminars consisted of the staff of the Planning Board, the staff of the provincial government, some members of the provincial parliament and university staff. One of the results of the research conducted by the university was used as important material in the drawing up of developmental plans for the division of Central Java into four subregions.

To assure the relevancy of the research projects, the provincial government plans to "contract" with the university for its research. The problems to be researched suggested by both parties will be discussed together and then priorities of topics will be decided upon. The Planning Board will be asked to evaluate the research proposals submitted by the various government offices. The university will be requested to research the ones relevant to regional development.

The provincial government has given a relatively large amount of financial support to the university for research. In 1972 the financial support amounted to 30 million rupiahs. It was increased to 50 million rupiahs in 1973. The approved research projects will be included in the annual budget of the provincial government.

2.3 The Role of Diponegoro University in Public Services

Diponegoro University, in cooperation with the provincial government, has conducted a course in network planning to upgrade officials of the provincial government. The curriculum of the course was fixed by the government. The university staff contributed the theoretical aspects of the course, while the representatives from the provincial government contributed their experiences. This cooperation, however, was not based on a formal written agreement between the university and the provincial government. The request for teaching staff from the university was made through the Rector.

An agreement exists between the provincial government and Diponegoro University for placing Diponegoro University graduates in the provincial government. Up until now university alumni have not had significant difficulties in obtaining appropriate jobs in the provincial government.

Starting in 1973, the university is sending its students to the villages, under the National Study Services Scheme (Kuliah Kerja Nyata), as a curricular activity. The students stay for three months in the villages to help the populace develop their society and the local economy.

VII. Brawijaya University

1. History

Brawijaya University was adopted as public university in 1963, in Malang, one of the larger cities in East Java. Prior to this, several Foundations had been built in the city with the main task of establishing colleges in Malang. The first foundation was the Foundation of Malang Colleges (May, 1957) which set up a Law and Social Sciences College in 1957 with 104 students.

This college was supported by the municipality city of Malang. In 1960 the Foundation established two more faculties i.e. the Faculty of Business Administration and the Faculty of Agriculture. These colleges were united into one university which was called the Malang Municipal University, in 1960. This name was changed in 1961 into Brawijaya University, which was still a private university. A second foundation was also established in 1957, called the Foundation of Malang Economics College, and established the College of Economics in Malang. These two foundations were fused and called the Foundation of Malang Universities, which set up Brawijaya University.

In 1974, Brawijaya had 6 faculties:,

Faculty of Law and Social Sciences (1957)

Faculty of Economics (1957)
Faculty of Agriculture (1960)
Faculty of Animal Husbandry (1961)
Faculty of Engineering (1963)
Faculty of Business and Public Administration (1960)

The number of staff and students are shown in Tables 7, 9, 15.

2. The Role of Brawijaya University in Regional Development

2.1 Relations and Cooperation with the Regional Government

In January 1970, the Minister of Education and Culture established in East Java a Regional Scientific and Development Centre (RSDC). The task of the centre is to coordinate the activities of the universities in East Java. The major responsibilities of RSDC are as follows:

(a) To invite scientists and provincial government officials for discussion on how to solve problems in development faced by the region.
(b) To coordinate activities in public service carried out by universities and institutes in East Java.
(c) To conduct surveys and feasibility studies related to development.

The Board of Directors of RSDC are the representatives of the universities/institutes in East Java. The Executive Board consists of one Chairman, one Vice-Chairman, and one Secretary Treasurer. RSDC works closely with the provincial government, military, and other agencies. Two staff members of Brawijaya University assist in planning. Although they serve as individuals in the Planning Board, their activities are officially recognized by the university.

2.2 Role of Brawijaya University in Research

Before the establishment of RSDC, the following research projects were carried out by the university:

(a) Survey on agricultural potential in East Java.
(b) Survey on tourism.
(c) Survey on transportation potential.
(d) Survey on public utilities.

In 1971/72, the provincial government granted RSDC an amount of 5 million rupiahs for research. In 1972/73 the financial support was increased to 50 million rupiahs. The problems to be researched were decided together by the provincial government and the university. Not less than 10 projects in

1971/72 and 17 projects in 1972/73 were approved to be financed. Some of the research projects conducted by Brawijaya University can be listed as follows:

(a) The potentials of animal husbandry and fisheries in East Java.
(b) Regional income in East Java.
(c) Production and marketing of secondary crops.
(d) Village community development.

VIII. Udayana University

1. History

Before the establishment of Udayana University, Bali had a Faculty in Literature since September 29, 1958, located in Denpasar, as a branch of Airlangga University. The reason for the early establishment of this faculty was due to Bali's fame as a center of arts.

As with the University of Indonesia, Udayana University was established upon the initiative of the provincial government and some prominent citizens. When this university was established in 1962, it started with 4 faculties, i.e. the Faculties of Literature, Medicine, Veterinary Medicine and Animal Husbandry and the Faculty of Teaching and Education.

The first three faculties are located in Denpasar, and the last one is located in Singaraja. The Faculty of Teaching and Education was separated from the university in 1963 and become a branch of the Institute of Teachers Training and Education (IKIP) in Malang.

In 1968 it was the integrated into the university and become a Teachers College and Faculty of Education.

At present, Udayana University has 9 faculties, i.e.:

1. Faculty of Literature (1958)
2. Faculty of Medicine (1962)
3. Faculty of Veterinary Medicine and Animal Husbandry (1962)
4. Faculty of Law and Social Sciences (1967)
5. Faculty of Engineering (1965)
6. Faculty of Economics (1967)
7. Faculty of Teachers College (1962, 1968)
8. Faculty of Agriculture (1967)
9. Faculty of Education (1962, 1968)

The numbers of staff and stugents are shown in Tables 7, 16.

2. The Role of Udayana University in Regional Development

2.1 Relations and Cooperation with the Regional Government

In August 1973, the provincial government of Bali established a Regional Planning Board. The main job of the Board is to develop a development plan which would be workable and which could be financed by the provincial budget. The Board consists of sixteen members, viz. one Chairman, one Secretary, five members in economic affairs, three members in social affairs, and three members in general affairs. All of the members are staff of the Governor's office.

The cooperation between the university and the provincial government existed since 1968 and is based on a written agreement. However, there have been no periodical meetings, between the university and the provincial government to evaluate the public service or to conduct workshops.

2.2 The Role of Udayana University in Research

During the Five-Year Plan, seven research projects were completed. Seven other research projects are still in process. Animal science and culture have a big influence in the development of the region. However, no one knows exactly whether the suggestions coming from the research were implemented by the provincial government. Research projects financed by the provincial government were among others: production and marketing of vegetables, demand projection for clothing, city planning, regional income analysis, coffee processing, strategy of regional development, and the influence of mass-tourism.

The material input invested by the provincial government in research activities benefit the development of the university. Research instruments of the research stations can be used by the university staff members, and one percent of the development budget of the provincial government was allocated to help finance the research facilities. The financial support went through the annual budget of the provincial government, while the accounting for all the expenditures conforms with the stipulated regulation. Since the First Five-Year Development Plan, the financial support for research carried out by the university amounted to Rp. 16,425 000. The agreement to be fulfilled by the university is to submit a research report within a fixed period. In addition, the university has to submit a progress report every month.

2.3 The Role in Public Services

The activities in public service took the form of an extension project and Study Service Scheme (Kuliah Kerja Nyata). There were two extension projects in the village of Sanur and the subdistrict Abiansemal. Animal husbandry,

public health, agriculture, law, and culture were the fields which were given intensive attention. Some of the projects completed are as follows:

(a) Project to select better varieties of crops and improved agricultural practices.
(b) Project to increase the skill of the village youth, such as in planting, sculpturing.
(c) Project to improve the efficiency of cooperatives.
(d) Project to improve the village's administration and village bank.

Part of the results of the public service activities have been implemented by the society. At this time, promotion of tourism and factors supporting tourism urgently need implementation by the provincial government.

The Faculty of Economics and the Faculty of Literature have opened courses in Bookkeeping, English, and German. The courses were open to government officials as well as the public. The curriculum of the courses was fixed by the faculty.

IX. Lambung Mangkurat University

1. History

Lambung Mangkurat University was founded in 1958 as a private university sponsored by a foundation organized by ex-leaders of the army and prominent civilians in Banjarmasin. In 1962, the central government assumed overall responsibility for this university.

Four faculties were in existence at that time, i.e. Economics, Law, Social Politics and Islam Religion. In the subsequent years an Agricultural Faculty and a Junior High School Teacher Training Faculty were established.

As is the case with universities in the provinces, the growth of this university has been very slow, although it is moderately faster than other universities in the same island of Kalimantan. One of the reasons for this slow rate of growth was that funds allocated by the foundation from 1957 to 1962 came only in irregular, unpredicatable and hard fought for instalments. These funds ceased when the foundation itself was wound up in 1965. This left the university with funds allocated by the central government only which is just sufficient to maintain the university administration and a limited amount of teaching, but not sufficient to support a larger, expanding educational programme.

The Lambung Mangkurat University is located in 2 places:

1. The Social Sciences in Banjarmasin, i.e. the Faculties of Law, Economics, Sociology, Political Sciences, Education and Teachers Training.
2. The Natural Sciences in Banjarmasin, i.e. the Faculties of Agriculture, Forestry, Fisheries and Engineering.

At present, the university has 9 faculties:

1. Faculty of Law (1958)
2. Faculty of Economics (1958)
3. Faculty of Social, Political Sciences (1958)
4. Faculty of Agriculture (1960)
5. Faculty of Fisheries (1968)
6. Faculty of Forestry (1968)
7. Faculty of Engineering (1968)
8. Faculty of Education (1968)
9. Faculty of Teachers Training (1968)

The number of staff and students are shown in Tables: 6, 7, 8, 9, 17.

2. The Role of Lambung Mangkurat University in Regional Devleopment.

2.1 Relations and Cooperation with the Regional Government

In 1972, the provincial government of South Kalimantan established a Regional Planning Board. The Chairman of this Body is the Rector of Lambung Mangkurat University, the Vice-Chairman is the Dean of the Economics Faculty, while the Secretary is a staff member from the Board. Twelve out of sixteen members of the Board are university staff members. The function of the Board is to assist the Governor. The task of the Board is to design a regional development plan and to control the operation of the planning. These activities are carried out by university staff members in the afternoon or in the evening – hence, the main duties of staff at the university are not disturbed by this additional job. This fact is in line with the policy of the university whereby the main duties at the university should come first.

Since October 1972, 60% of the planning work in South Kalimantan is being done by the university. In the city of Banjarmasin, the university members are taking an active part as advisors and committee members in a variety of the city's administrative, financial and cultural activities.

2.2 The Role in Research

Research priorities are based on the needs of the provincial government.

The Regional Planning Board directs research priorities in line with the provincial development plans. According to this plan, the province will be divided into three types of agriculture; areas suitable for estate crops, areas suitable for animal husbandry and the areas suitable for food crops. The topics to be solved through research are discussed both by the planning board and the university. Since agricultural development has been given the highest priority, the Faculty of Agriculture has received the largest number of research projects. Other faculties which have been active in research and public service are the Faculties of Economics, Law, Forestry, Social Politics, Teachers and Education. Since November 1973, an annual scientific meeting has been held in which the results of all research are exposed. Some of the research projects completed can be listed as follows:

(a) Survey on marketing of sea-fish and agricultural export crops.
(b) Survey on the possibility of enlarging the area for export crops.
(c) Survey on pasture and animal husbandry.
(d) Survey on coconut, citrus, and rice.
(e) Survey on forestry.
(f) Survey on transmigration and manpower.
(g) Survey on village administration.
(h) Survey on the social conditions of an isolated community.
(i) Survey on religious life of Dayak community.

2.3 The Role in Public Services

The activities in public service to date have been in the form of an extension project and a National Study Service Scheme in cooperation with the Labour Department, and volunteer graduates (Sarjana "BUTSI") who are working in the villages.

The university has sent 27 students, divided into 4 groups, to four locations. These locations were selected both by the provincial government and the university. This activity is an intracurricular activity.

Each student stays for six months in a village. Each group is supervised by one staff member. The main job of each student is to help the people in the village develop their society and village economy. The budget for this programme came from two sources, the Ministry of Education and Culture providing Rp. 750,000, and the provincial government the amount of Rp. 1,250,000.

Lambung Mangkurat University has not conducted upgrading courses for government officials. The participation of the university has been in the form of teaching some courses and giving popular lectures. The number and content of the courses were fixed by the government.

Other activities of the university are the development of curricula and educational materials of the local schools, relevant to the needs of the rural environment. A regional culture centre has also been established to restore and promote the cultural heritage. Health standards are also upgraded through the establishment of a health centre by the university.

X. Hasanuddin University

1. History

During the fight for Independence, the Dutch had established a Faculty of Economics in Makassar, South Sulawesi, as the first higher education institution outside Java. All teaching staff were Dutch. When the Dutch left the city in 1959 for various reasons, the government of Indonesia closed the college and most of the students were transferred to Universitas Indonesia in Jakarta.

Higher education was reopened again in Makassar in 1952 when a Faculty of Law and Social Sciences was established as a branch of the Law Faculty of Universitas Indonesia. In October 4, 1953, the branch of the Economics Faculty was reactivated.

During the subsequent years, several faculties were established by the government and Hasanuddin University came into being in September 1956.

At present the university has 9 faculties, i.e.

1. Faculty of Economics (1948)
2. Faculty of Law (1952)
3. Faculty of Medicine & Dentistry (1955)
4. Faculty of Engineering (1960)
5. Faculty of Arts (1960)
6. Faculty of Social Political Sciences (1961)
7. Faculty of Agriculture (1962)
8. Faculty of Mathematics and Natural Sciences (1963)
9. Faculty of Animal Husbandry (1964)

The number of staff and students are shown in Tables: 6, 7, 8, 9, 18.

2. The Role of Hasanuddin University in Regional Development

2.1 Relation and Cooperation with the Regional Government

The Regional Planning Board (Bapperda = Badan Perencanaan Pemerintah Daerah), has recently been established (1972). The Chairman of the Board is from the army and the Vice Chairman comes from the university.

Aside from this Board, there exists an Advisory Council where most of the members come from the university. These bodies give advice to the Governor on issues related to the development of the region.

Another body that also provides advice for the Governor is the Dewan Pertimbangan Pembangunan (Advisory/Consultative Council for Development). Members of this body come from the students, artists, businessmen and journalists.

Long before the establishment of these bodies, the university itself was actively involved in the planning process in regional development. The university staff, acting as members of a team, prepared the First Five-Year Plan of South Sulawesi. This was possible due to the existence of good relations between the Rector and the Governor. This good relationship was then made formal and a written agreement was signed. (The regional development budget contains a special budget for university. The amount is approximately 10% from the total budget. For 1972/73 fiscal year, UNHAS received 5 million rupiahs. The use of the funds is not subject to government guidance).

2.2 The Role in Research Activities

(1) The Faculty of Economics conducts research in the calculation of regional income. (Several issues requiring solutions by the provincial government through this research are the reorganization of village government structure, rice-fields and irrigation area estimates, labour force distribution, transmigration to other areas. Research activity is the prominent hope of the provincial government because they do not have effective data).

(2) Since 1969, the Faculty of Agriculture has provided assistance in research to the Agricultural Research Institute by the assignment of 8 personnel from its staff, and 2 personnel at a sugar factory in Bone. Cooperation is also carried out with Dolog (Logistics Depot). Funds for the research was provided by Dolog. Research activities by the Faculty of Agriculture were begun in 1969, seven years after the establishment of the faculty. The main reason is that the number of full-timer staff through 1967 was only 8 persons. The number of research projects completed since 1969 covers 47 issues. Fund resources can be described as follows:

Bappenas	43.7%
Department of Agriculture	37.8%
S A E	12.1%
Department of Education and Culture, Dolog, UNHAS, other agencies	5.8%

Research activities are coordinated by the Faculty Research Institute established in November, 1968. Cooperation in research with other organizations is based upon cooperative agreements.

2.3 The Role in Public Services

(1) Since 1963/64, the Faculty of Agriculture has participated in the Bimas programme based upon a cooperation agreement. Since 1969, it has assisted the Agriculture Service Inspectorate in planning pest eradication. There are 6 staff detailed to the Inspectorate. They are senior staff appointed by the Dean of the faculty. The time duration allocated to this agency is 2 days per week. Staff can be called any time by the faculty and replaced by other staff. The background of this harmonious cooperation is due to good personal relationship between the leaders of both the faculty and the agency.

(2) UNHAS has provided upgrading courses for Kowihan (Regional Defense Command Staff). Upgrading courses in the field of administration are conducted jointly by the Social and Political Science Department and the Institute for Public Administration (LAN).

(3) UNHAS Faculty of Economics provides additional education for the regional government staff and planners of the district. There are 23 districts in South Sulawesi.

(4) The Faculty of Letters provides upgrading English courses to the university staff and community members from outside the university.

(5) The Faculty of Forestry assists Forestry Service in greening and reforestration programmes.

(6) UNHAS students performed a study service scheme in the sub-district of Maros, 30 kilometers from Ujung Pandang, which took place from July 30, 1972 through May 15, 1973. Their activities included efforts to increase the income of the local populace by increasing agriculture and livestock production. Promotion of extension service in agriculture, animal husbandry and health care were also included in this programme.

(7) Teaching staff of the Faculties of Agriculture, Social and Political Science and Economics organized a workshop together with the staff of the Governor in 1972.

XI. Sam Ratulangi University (UNSRAT)

1. History

As with the other universities, UNSRAT was established, upon the initiative of the provincial government and some provincial citizens.

At present this university has 9 faculties, i.e. the Faculties of Law, Economics, Arts, Medicine, Agriculture, Animal Husbandry, Engineering, Fisheries and Politics and Sociology.

The number of staff and students of the respective faculties are shown in Tables 7, 9, 19.

The other higher education institution in North Sulawesi active in regional development is the Institute of Teachers Training and Education.

2. The Role of the University of Sam Ratulangi (UNSRAT) in Research

(1) Upon requests made by Dolog, IKIP performed research in food marketing. This research was completed about one and a half years ago. Funds were provided by Dolog.

(2) UNSRAT Faculty of Law jointly with the Department of Justice conducted research on the influence/effects of religion in criminal law.

(3) A number of staff from various faculties in UNSRAT (Economics, Agriculture, Animal Husbandry, Fisheries, Technology, Social and Political Science) assisted the regional government to conduct research in regional income accounting. The team for this activity was formed in July 1972 and was completed in June 1973. Such research which was conducted for the first time covered regional income accounting for four years (1969-1972). Survey preparation and planning were discussed jointly with the Central Bureau of Statistics in Jakarta and Bappenas while data collection and analysis were assisted by government agencies operating in North Sulawesi.

3. The Role of the University of Sam Ratulangi in Public Services

(1) Since 1972, IKIP has conducted upgrading courses for elementary school teachers designed for education modernization. The first course was attended by 600 teachers from the city of Manado. The second one was attended by approximately 2000 teachers while

the third course was attended by 500 teachers. Simultaneously, these courses were considered as relevancy tests of education at IKIP because the results were evaluated jointly. There had been no opportunity previously for the IKIP staff to practice teaching methodology outside IKIP.

(2) IKIP conducted upgrading courses for navy officers in the field of economics, etc. The programme was jointly prepared by the navy and IKIP. This course is given as a preparatory course for the navy officers attending Seskoal (Navy Commanding Staff Course). Participants in this course consisted of officers from North and Central Sulawesi. Cooperation based upon agreements has also been conducted with Kodam (Provincial Military Command) and with the Police Command.

(3) IKIP conducted a Pramuka (boys scout and girls guide) programme. IKIP teaching staff taught elementary school students in rice and sorghum cultivation. The purpose of this programme was to equip the students with skills necessary to find employment in the community. The possibility of expansion of this project with the establishment of a sorghum seed station in Central Sulawesi has been discussed with the military authorities.

(4) With the permission granted by the Department of Education and Culture, 16 physicians from UNSRAT have worked for some time in several kabupatens (districts). After the completion of this programme many requests from districts were received by the university for the assignment of those physicians to those districts. Unfortunately, the university could not respond properly to these requests.

(5) A number of UNSRAT staff were appointed as executive and formulating committee of the workshop on regional development for the province of North Sulawesi. The workshop took place from August 2 – 4, 1973. The budget was charged to the regional budget of the province of North Sulawesi. The committee, in the performance of its tasks, was responsible to the Governor. Total workshop participants were about 250 people.

(6) UNSRAT students conducted also a study service scheme.

Table 6 Number of Staff Members 1972

Faculties / University	Syiah Kuala	Sri-wijaya	Andalas	North Sumatra	Padjadjaran	Dipo-negoro	Bra-wijaya	Udayana	Lambung Mangkurat	Hasanud-din	Sam Ratu-langi
1. Agriculture	6	–	51	62	–	–	–	–	21	53	–
2. Vet. Med. & Anim. Husb.	25	–	–	–	–	–	–	–	–	–	–
3. Anim. Husb.	–	–	40	–	106	–	–	–	–	19	–
4. Fisheries	–	–	–	–	–	–	–	–	1	–	–
5. Forestry	–	–	–	–	–	–	–	–	–	–	–
6. Medicine	–	–	105	234	47	–	–	–	–	132	–
7. Dentistry	–	–	–	30	32	–	–	–	–	–	–
8. Engineering	11	–	–	91	–	–	–	–	1	57	–
9. Math. & Vet. Sc.	–	–	57	28	14	–	–	–	–	34	–
10. Economics	34	–	47	57	85	–	–	–	16	42	–
11. Law	19	–	55	66	82	–	–	–	17	47	–
12. Arts	–	–	–	5	71	–	–	–	–	50	–
13. Psychology	–	–	–	–	25	–	–	–	–	–	–
14. Social, Political Sc.	–	–	–	–	49	–	–	–	7	40	–
15. Journalism	–	–	–	–	152	–	–	–	–	–	–
16. Teachers Coll.	32	–	–	–	–	–	–	–	26	–	–
17. Education	16	–	–	–	–	–	–	–	10	–	–
18. Public & Business Administration	–	–	–	–	–	–	–	–	–	–	–
Total	143	–	355	573	663	–	–	–	103	474	–

Table 7 Number of Staff Members 1973

Faculties / University	Syiah Kuala	Sri-wijaya	Andalas	North Sumatra	Padjadjaran	Dipo-negoro	Bra-wijaya	Udayana	Lambung Mangku-rat	Hasanud-din	Sam Ratu-langi
1. Agriculture	18	29	55	70	–	–	15	7	30	61	46
2. Vet. Med. & Anim. Husb.	31	–	–	–	–	–	–	27	–	–	–
3. Anim. Husb.	–	–	40	–	–	38	19	–	–	24	7
4. Fisheries	–	–	–	–	–	–	–	–	6	–	–
5. Forestry	–	–	–	–	–	–	–	–	4	–	–
6. Medicine	–	67	131	242	–	136	–	54	–	132	72
7. Dentistry	–	–	–	38	–	–	–	–	–	–	–
8. Math. & Vet. Sc.	–	–	66	39	–	–	–	–	–	42	–
9. Engineering	23	36	–	104	–	34	16	3	1	56	8
10. Economics	61	39	50	58	–	24	25	13	25	65	37
11. Law	31	19	56	68	–	27	29	–	20	44	33
12. Arts	–	–	–	7	–	28	–	19	–	47	41
13. Psychology	–	–	–	–	–	–	–	–	–	–	–
14. Social Political Sc.	–	–	–	–	–	25	–	–	10	41	39
15. Journalism	–	–	–	–	–	–	–	–	–	–	–
16. Teachers Coll.	65	50	–	–	–	–	–	44	–	–	–
17. Education	23	24	–	–	–	–	–	10	21	–	–
18. Public & Business Administration	–	–	–	–	–	–	24	14	44	–	–
Total	252	264	398	626	–	312	128	191	161	512	283

Table 8 Number of Students 1972

	Faculties / University	Syiah Kuala	Sri-wijaya	Andalas	North Sumatra	Padjadjaran	Dipo-negoro	Bra-wijaya	Udayana	Lambung Mangkurat	Hasanud-din	Sam Ratu-langi
1.	Agriculture	111	–	463	786	642	–	–	–	81	927	–
2.	Vet. Med. & Anim. Husb.	75	–	–	–	–	–	–	–	–	–	–
3.	Anim Husb.	–	–	113	–	263	–	–	–	–	255	–
4.	Fisheries	–	–	–	–	–	–	–	–	30	–	–
5.	Forestry	–	–	–	–	–	–	–	–	61	–	–
6.	Medicine	–	–	652	1298	1073	–	–	–	–	747	–
7.	Dentistry	–	–	–	364	316	–	–	–	–	–	–
8.	Engineering	293	–	–	1902	–	–	–	–	123	609	–
9.	Math. & Vet. Sc.	–	–	423	566	1002	–	–	–	–	456	–
10.	Economics	495	–	748	770	1662	–	–	–	350	1145	–
11.	Law	377	–	587	804	1081	–	–	–	372	1700	–
12.	Arts	–	–	0	176	637	–	–	–	–	492	–
13.	Psychology	–	–	–	–	239	–	–	–	–	–	–
14.	Social, Political Sc.	–	–	–	–	614	–	–	–	55	726	–
15.	Journalism	–	–	–	–	310	–	–	–	–	–	–
16.	Teachers Coll.	603	–	–	–	–	–	–	–	270	–	–
17.	Education	214	–	–	–	–	–	–	–	131	–	–
18.	Public & Business Administration	–	–	–	–	–	–	–	–	–	–	–
	Total	2168	–	2986	6666	7839	–	–	–	1473	7057	–

Table 9 Number of Students 1973

	Faculties / University	Syiah Kuala	Sri-wijaya	Andalas	North Sumatra	Padjadjaran	Dipo-negoro	Bra-wijaya	Udayana	Lambung Mangkurat	Hasanud-din	Sam Ratu langi
1.	Agriculture	154	275	360	817	–	–	371	–	98	774	306
2.	Vet. Med. & Anim. Husb.	154	–	–	–	–	–	–	–	–	–	–
3.	Anim. Husb.	–	–	120	–	–	359	99	–	–	282	224
4.	Fisheries	–	–	–	–	–	–	–	–	40	–	48
5.	Forestry	–	–	–	–	–	–	–	–	66	–	–
6.	Medicine	–	436	635	1178	–	980	–	–	–	716	360
7.	Dentistry	–	–	–	399	–	–	–	–	–	–	–
8.	Engineering	358	433	–	1758	–	1261	570	–	00	807	46
9.	Math. & Vet. Sc.	–	–	437	803	–	–	–	–	–	263	–
10.	Economics	495	412	827	1239	–	782	677	–	399	775	233
11.	Law	485	414	589	835	–	962	746	–	350	694	169
12.	Arts	–	–	–	257	–	–	–	–	–	535	159
13.	Psychology	–	–	–	–	–	–	–	–	–	–	–
14.	Social, Political Sc.	–	–	–	–	–	828	–	–	98	869	360
15.	Journalism	–	–	–	–	–	–	–	–	–	–	–
16.	Teachers Coll.	720	439	–	–	–	–	–	–	335	–	–
17.	Education	248	206	–	–	–	–	–	–	142	–	–
18.	Public & Business Administration	–	–	–	–	–	–	685	–	–	–	–
	Total	2614	2615	2968	7286	–	5178	3148	–	1629	5715	1905

Table 10 Syiah Kuala University Number of Students: 1973

	Faculties Grade	I	II	III	IV	V	VI	Total
1.	Agriculture	58	16	10	42	19	–	145
2.	Vet. Med. & Anim. Husb.	41	14	19	14	11	55	154
3.	Engineering	192	116	50	–	–	–	358
4.	Economics	114	51	62	95	57	116	495
5.	Law	232	70	117	45	21	–	485
6.	Teachers Coll.	276	103	166	98	77	–	720
7.	Education	75	38	98	11	25	–	248
								2605

Table 11 Sriwijaya University Number of Students: 1973

	Faculties Grade	I	II	III	IV	V	VI/VII	Total
1.	Agriculture	107	53	69	46	–	–	275
2.	Medicine	82	70	80	44	58	62/40	436
3.	Engineering	195	103	69	36	30	–	433
4.	Economics	158	65	67	50	56	16	412
5.	Law	193	66	42	80	33	–	414
6.	Teachers Coll.	127	81	146	27	58	–	439
7.	Education	–	–	–	–	–	–	–
								2409

Table 12 Andalas University Number of Students: 1973

	Faculties Grade	I	II	III	IV	V	VI/VII	Total
1.	Medicine	59	59	81	97	125	169/45	635
2.	Math. & Vet. Sc.	76	64	61	60	176	–	437
3.	Agriculture	64	75	60	151	10	–	360
4.	Anim. Husb.	27	28	15	9	41	–	120
5.	Economics	251	66	162	76	273	–	828
6.	Law	126	98	72	165	128	–	589
								2969

Table 13 University of North Sumatra Number of Students: 1973

	Faculties · Grade	I	II	III	IV	V	VI	Total
1.	Medicine	163	112	113	168	270	219	1045
2.	Law	459	134	116	83	43	–	835
3.	Agriculture	190	152	94	94	48	239	817
4.	Engineering	457	457	325	237	252	–	1728
5.	Economics	557	408	90	108	79	–	1242
6.	Dentistry	101	50	70	60	118	–	399
7.	Arts	70	75	81	25	6	–	257
8.	Math. & Nat. Sc.	199	306	218	66	14	–	803
								7126

Table 14 Diponegoro University Number of Students: 1973

	Faculties Grade	I	II	III	IV	V	VI/VII	Total
1.	Law	344	182	187	102	170	–	985
2.	Economics	307	161	83	98	133	–	782
3.	Engineering	445	330	295	187	54	–	1311
4.	Medicine	115	118	118	127	143	164/127	912
5.	Anim. Husb.	125	81	83	23	97	–	409
6.	Sos.-Bud.	61	57	49	38	5	–	210
7.	Social, Political Sc.	345	157	104	174	58	–	838
								5447

Table 15 Brawijaya University Number of Students: 1973

	Faculties	I	II	III	IV	V	VI	Total
1.	Law	230	94	158	162	103	–	747
2.	Economics	228	102	122	297	–	–	749
3.	Anim. Husb.	25	22	11	26	15	–	99
4.	Agriculture	109	52	77	118	15	–	371
5.	Engineering	178	259	–	133	–	–	570
								2536

Table 16 Udayana University Number of Students: 1973

	Faculties	Grade I	II	III	IV	V	VI	Total
1.	Agriculture	43	31	13	27	–	–	114
2.	Vet. Med. & Anim. Husb.	33	22	36	28	63	–	181
3.	Medicine	99	56	59	62	83	76	435
4.	Engineering	116	74	55	–	–	–	245
5.	Economics	160	55	47	83	–	–	345
6.	Arts	53	31	73	19	1	–	177
7.	Teacher Coll.	124	100	317	1	31	–	573
8.	Education	42	32	39	3	6	–	122
9.	Public & Business Administration	84	71	64	46	10	–	275
								2467

Table 17 Lambung Mangkurat University Number of Students: 1973

	Faculties	Grade I	II	III	IV	V	VI	Total
1.	Economics	224	69	53	34	19	–	399
2.	Law	179	39	71	29	32	–	350
3.	Soc.-Politics	39	12	9	17	21	–	98
4.	Education	47	20	62	2	12	–	143
5.	Teachers Coll.	106	81	116	14	18	–	335
6.	Agriculture	47	11	9	3	28	–	98
7.	Engineering	22	22	52	4	–	–	100
8.	Forestry	33	4	12	12	5	–	66
9.	Fisheries	19	7	6	4	4	–	40
								1629

Table 18 Hasanuddin University Number of Students: 1973

	Faculties	Grade I	II	III	IV	V	VI	Total
1.	Economics	303	135	150	78	109	–	775
2.	Law	362	124	95	84	29	–	694
3.	Medicine	138	134	131	135	110	68	716
4.	Engineering	529	136	73	51	18	–	807
5.	Arts	93	52	231	110	49	–	535
6.	Soc., Political Sc.	506	63	79	92	129	–	869
7.	Agriculture	258	107	118	131	123	37	774
8.	Math. & Nat. Sc.	97	39	70	44	13	–	263
9.	Anim. Husb.	179	19	26	23	35	–	282
								5715

Table 19 Sam Ratulangi University Number of Students: 1973

	Faculties / Grade	I	II	III	IV	V	VI/ VII	Total
1.	Medicine	77	51	37	43	54	39/59	360
2.	Agriculture	91	42	42	52	56	23	306
3.	Anim. Husbandry	86	41	57	40	–	–	224
4.	Engineering	21	8	7	9	1	–	46
5.	Fisheries	–	–	–	27	21	–	48
6.	Economics	104	87	42	–	–	–	233
7.	Law	57	12	18	50	52	–	189
8.	Social, Political Sc.	82	47	147	42	42	–	360
9.	Arts	42	16	15	19	9	58	159
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